

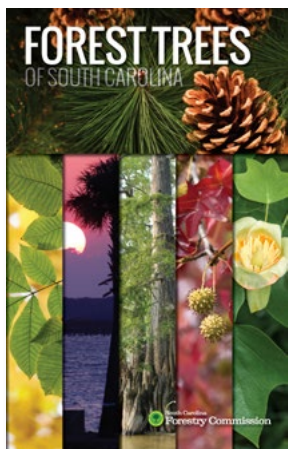
# FOREST TREES

## OF SOUTH CAROLINA



South Carolina  
**Forestry Commission**

# CONTENTS



*Forest Trees Of South Carolina,*  
published by the  
South Carolina Forestry Commission  
December 2018

EDITOR-IN-CHIEF

**Justin Holt**  
Public Information Coordinator

MANAGING EDITOR

**Doug Wood**  
Director of Communications

CONTRIBUTING EDITORS

**Chisolm Beckham**  
Rural Forestry Programs Coordinator

**Scott Danskin**  
Forest Resource Analyst

**Byron Rominger**  
Forest Inventory & Analysis  
Coordinator

The South Carolina Forestry Commission is proud to present to the citizens of South Carolina this updated edition of the agency's native forest tree identification manual, originally produced in 2003.

This greatly improved guide represents a significant upgrade to its predecessor in scope and detail; in addition to replacing one-color line drawings of trees and their identifying characteristics with full-color photographs, we have added more than a dozen native species that appeared in the first edition, added a section on tree and leaf anatomy, incorporated range maps for every species and included many more anecdotal and characteristic keys to identifying South Carolina's native trees.

While every attempt was made to use as many original photographs taken by Forestry Commission staff as possible, this edition could not have been completed without the wonderful contributions of many other foresters, forestry professors, naturalists, nursery providers, arborists and tree lovers around the country, to all of whom we are deeply indebted.





# FOREWORD

The mission of the South Carolina Forestry Commission to protect, promote, enhance and nurture the state's forestlands in a manner consistent with achieving the greatest good for its citizens, and it is in this spirit that we developed this reference manual to serve the citizens of South Carolina in learning about our many forest trees.

Our state is blessed with a panoply of forest types, from the Blue Ridge Mountains of the Upstate to the sandhills of the Pee Dee and to the coastal plain of the Lowcountry. Each is composed of a unique assemblage of flora that collectively contribute to a diverse mosaic of over 100 different species of forest trees.

Of these, more than half are of commercial value, creating a renewable resource that feeds one of the largest industry sectors in the state. For many, the greatest wealth of our forest resource is expressed in its sheer abundance, covering more than 12.9 million acres of South Carolina. That bounty is managed for the most part by private landowners, who own 87 percent of the state's forestland. South Carolina's forest industry, represented by primary and secondary manufacturers, has long been an economic engine that uses this wood to create wealth, added value and many thousands of jobs. Nowhere is the idea of working forests – forestland carefully managed to supply a steady, renewable, sustainable supply of wood for paper, packaging, lumber, energy and other consumer goods – more apparent than in the Palmetto State.

Having a knowledge of trees, where they grow, how they grow, and how they may be used, makes for a greater appreciation of the forest resource specifically and of the outdoors in general. In a state with such vast diversity, there is certainly much to appreciate and even more to learn.

Referencing his travels through South Carolina in 1776, William Bartram wrote that our forestland "...employs the imagination and captivates the senses by their magnificence and grandeur." We hope this guide serves that imagination well in your personal travels across our beautiful state.

## Note

The distribution references of species were derived from Forest Inventory and Analysis (FIA) field observations, as collected by SCFC personnel. Species may occur in counties not referenced; however their presence has not been verified on the ground.

# SPECIES, BY LEAF TYPE

## Palmetto

Cabbage Palmetto	8	Red Mulberry	86
		River Birch	88
		Serviceberry	90

## Needle leaf conifer

Baldcypress	10	Sourwood	92
Carolina Hemlock	12	Southern Crabapple	94
Eastern Hemlock	14	Sugarberry	96
Eastern White Pine	16	Swamp Chestnut Oak	98
Loblolly Pine	18	Swamp Cottonwood	100
Longleaf Pine	20	Water Tupelo	102
Pond Pine	22	Wax Myrtle	104
Pondcypress	24	White Basswood	106
Shortleaf Pine	26	Winged Elm	108
Slash Pine	28		
Spruce Pine	30	<b>Lobed simple leaf</b>	
Virginia Pine	32	American Sycamore	110

## Scale leaf conifer

Atlantic White Cedar	34	Black Oak	112
Eastern Redcedar	36	Blackjack Oak	114
		Cherrybark Oak	116

## Untoothed simple leaf

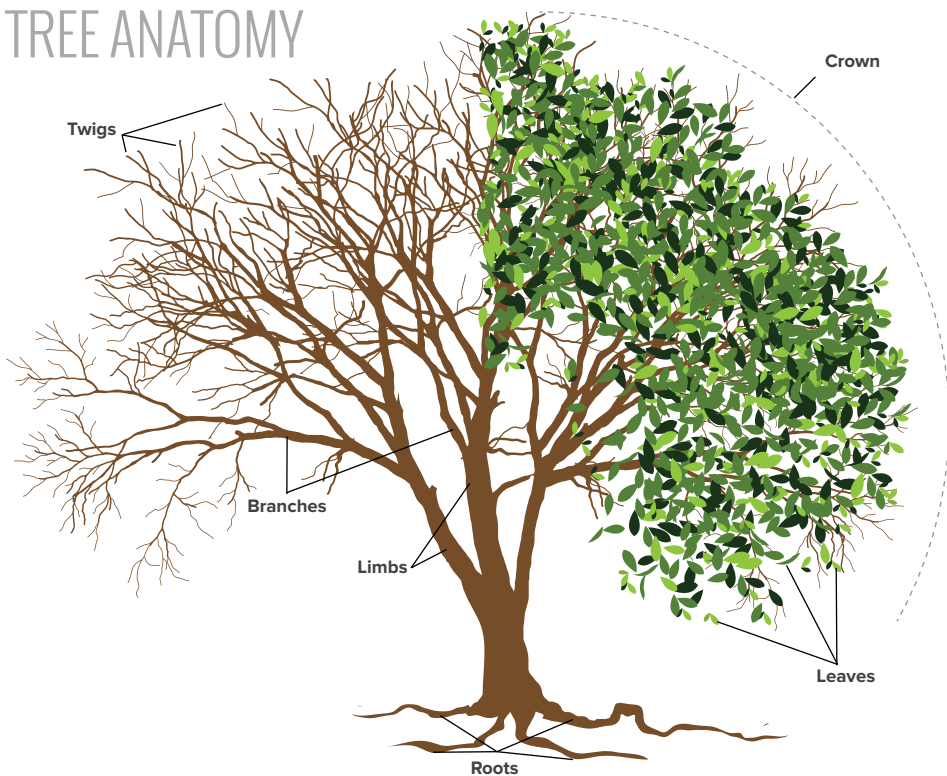
Blackgum	38	Chestnut Oak	118
Bluejack Oak	40	Chinkapin Oak	120
Eastern Redbud	42	Florida Maple	122
Flowering Dogwood	44	Northern Red Oak	124
Laurel Oak	46	Overcup Oak	126
Live Oak	48	Post Oak	128
Pawpaw	50	Red Maple	130
Persimmon	52	Sassafras	132
Redbay	54	Scarlet Oak	134
Southern Magnolia	56	Silver Maple	136
Swamp Tupelo	58	Southern Red Oak	138
Sweetbay	60	Sweetgum	140
Willow Oak	62	Turkey Oak	142
		Water Oak	144
		White Oak	146
		Yellow-Poplar	148

## Toothed simple leaf

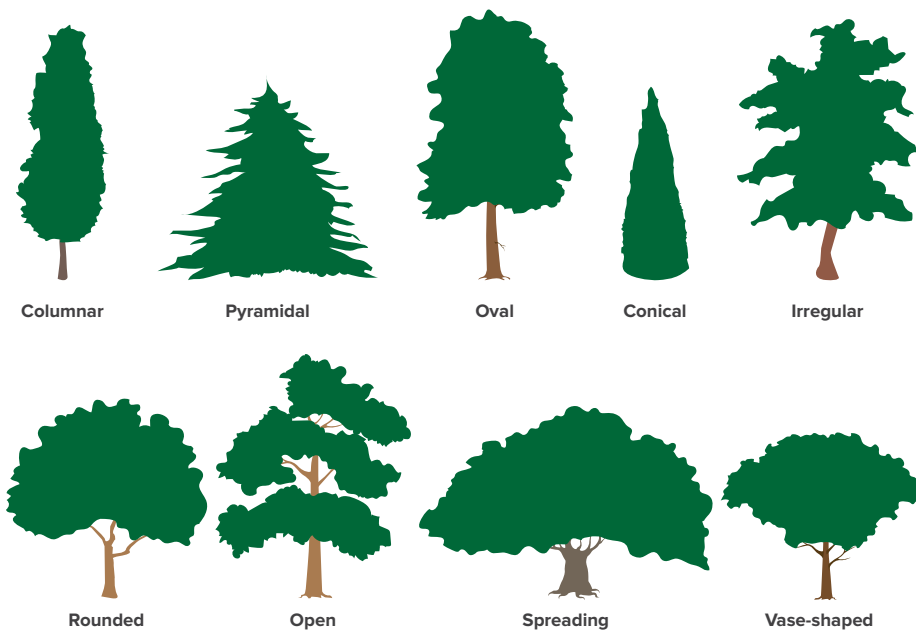
American Beech	64	<b>Compound leaf</b>	
American Elm	66	Black Locust	150
American Holly	68	Black Walnut	152
American Hornbeam	70	Boxelder	154
Black Cherry	72	Green Ash	156
Black Willow	74	Honeylocust	158
Carolina Laurelcherry	76	Mockernut Hickory	160
Eastern Cottonwood	78	Pecan	162
Eastern Hophornbeam	80	Pignut Hickory	164
Hawthorn	82	Red Buckeye	166
Loblolly Bay	84	Shagbark Hickory	168
		White Ash	170



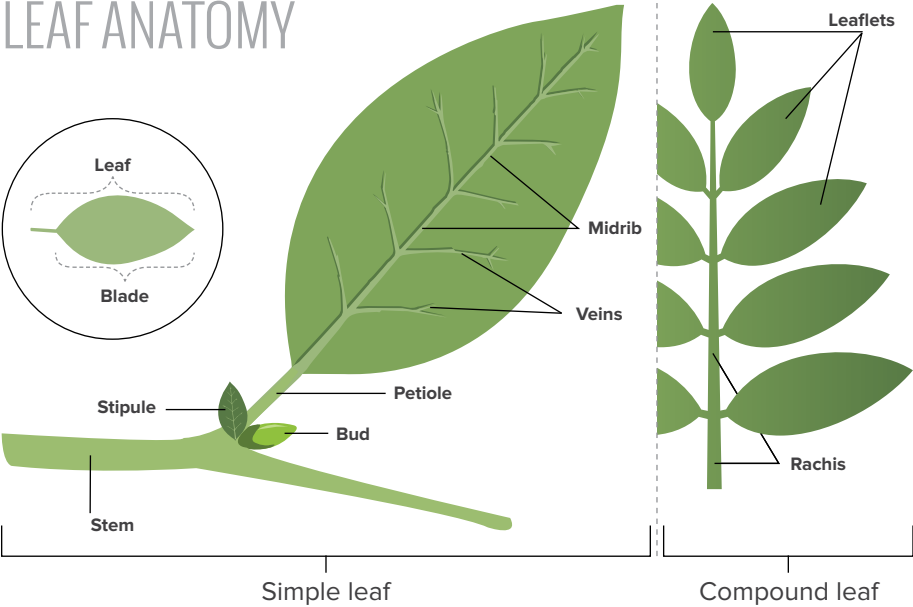
# TREE ANATOMY



# TREE SHAPES

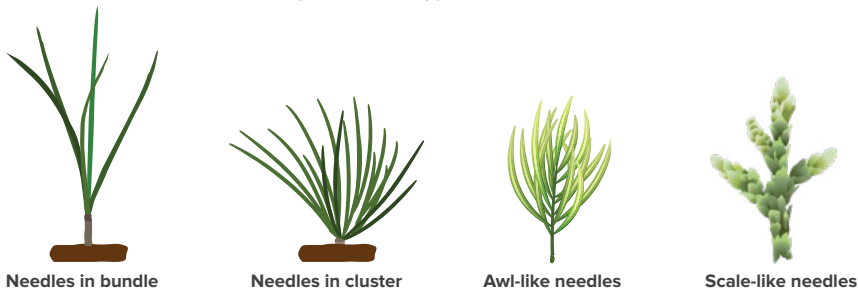


# LEAF ANATOMY

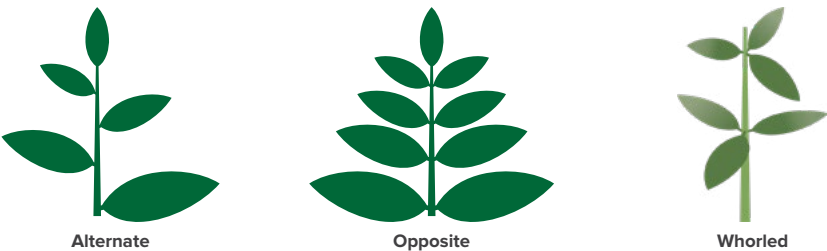


# LEAF ARRANGEMENT

Leaf arrangement of gymnosperms/conifers

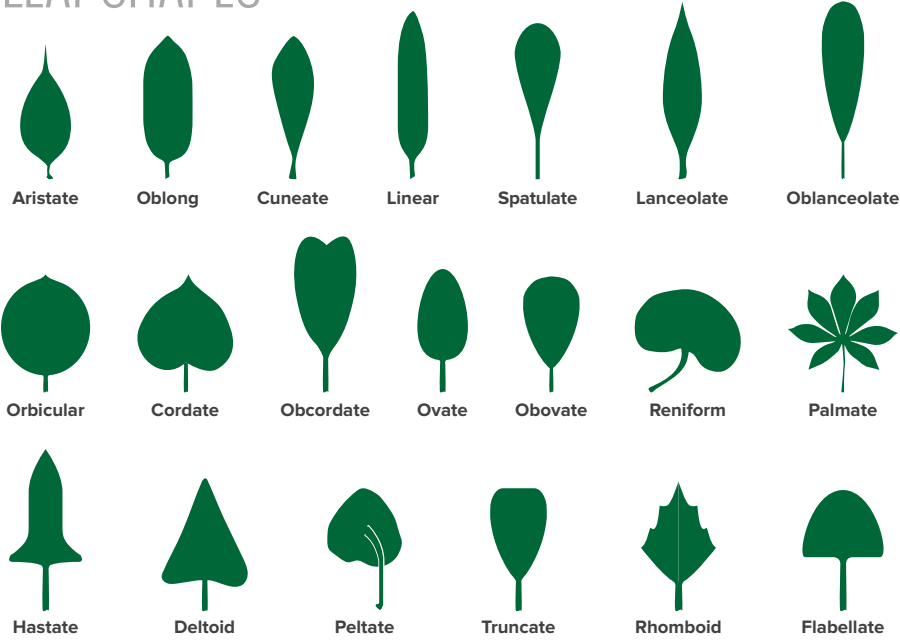


Leaf arrangement of angiosperms/hardwoods

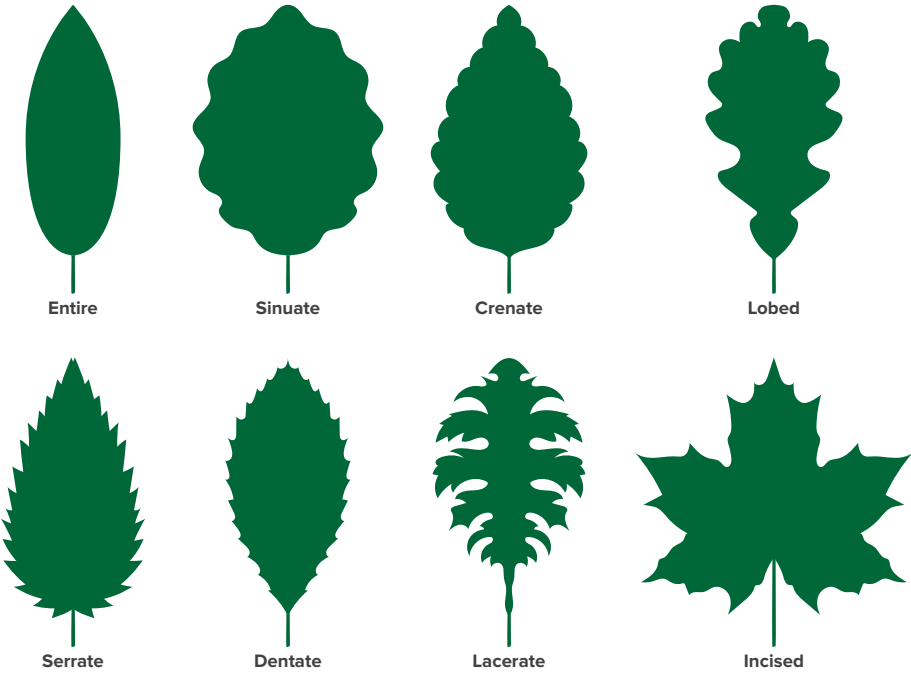




# LEAF SHAPES



# LEAF MARGINS





# CABBAGE PALMETTO

## SABAL PALMETTO

**Height:** 30-50'

### Characteristics

**Leaf:** Fan-shaped with stiff half-round stems that are 6 to 7 inches long; leaf blades are 5 to 8 inches long in numerous drooping segments bearing many threadlike fibers; rachis extends through the leaf while it stops in the dwarf palmetto leaf.

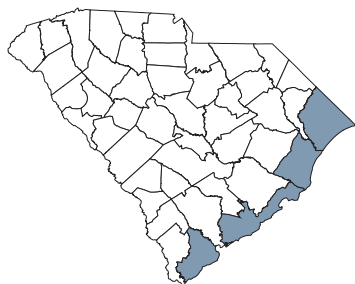
**Fruit:** Round to oval, black and in drooping clusters; each fruit encloses a single chestnut-brown seed; appears in the spring.

**Flower:** Tiny, white and droop in clusters about 2 inches long.

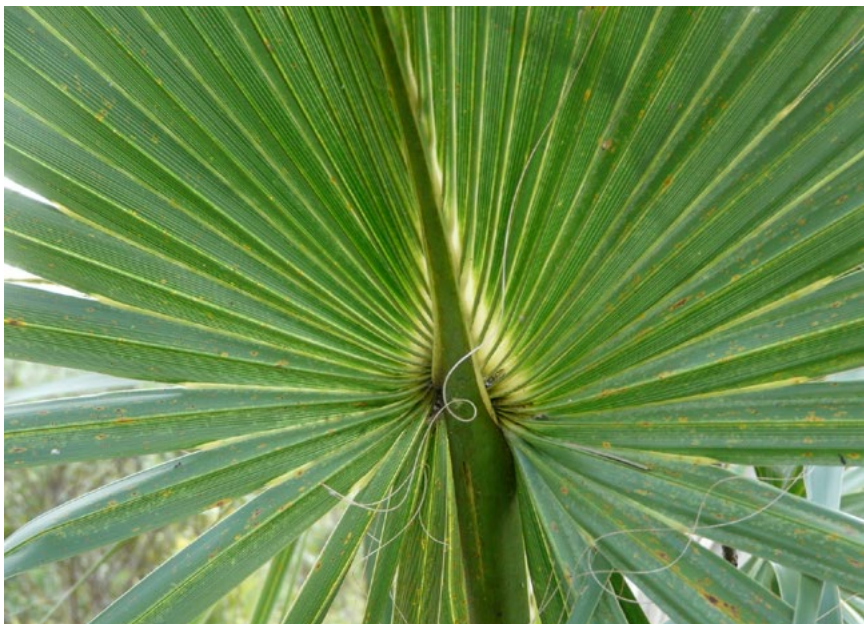
**Bark:** Bark of young trees and bark near live leaves of older trees are ringed with leaf scars at leaf base; becomes smooth and brownish to gray.

**Location/Other:** Along the Atlantic Coast and occasionally planted inland; various but usually associated with sandy soils along the coast; state tree of South Carolina.

**Use:** Ornamental; trunks are used for wharf pilings, docks and poles; brushes and whisk brooms are made from young leafstalk fibers; baskets and hats are made from leaf blades.









# BALDCYPRESS

## TAXODIUM DISTICHUM

**Height:** 100-120'

### Characteristics

**Leaf:** Alternate leaf arrangement; only native conifer that sheds its needle-shaped leaves each winter; leaves are linear shaped, flat, two ranked, yellow green and feathery in appearance; turn deep red in the fall.

**Cone:** Ball-shaped and 1 inch in diameter; has thick scales.

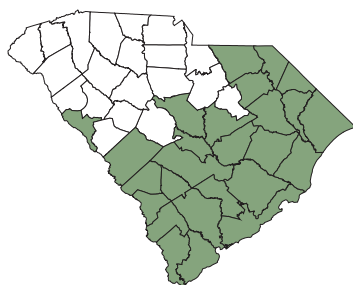
**Flower:** Monoecious; Male flowers are greenish and in drooping panicles; females are greenish and subglobose.

**Bark:** Fibrous, light gray to reddish-brown, and fairly thin.

**Location/Other:** Coastal plain and sandhills; associated with the red river

system; very wet soils, mucks, clays, fine sand; does best where drainage is moderate; intermediate shade tolerance; base of trunk is swollen; cone-shaped knees project from submerged roots; very disease resistant.

**Use:** Valuable timber species; used in heavy construction, including docks, warehouses, boats, bridges and general millwork and interior trim; called pecky cypress.











# CAROLINA HEMLOCK

## TSUGA CAROLINIANA

**Height:** 40-60'

**Use:** Ornamental; minor commercial value.

### Characteristics

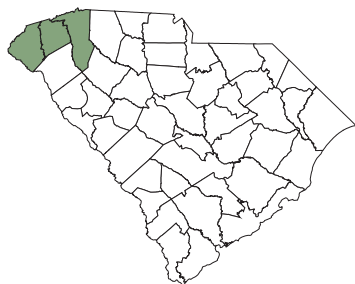
**Leaf:** Evergreen tree; needles are  $\frac{3}{8}$  to  $\frac{5}{8}$  of an inch long with two lateral white lines on underside of needle; spread from twig in all directions.

**Cone:** Small woody cone; 1 to 1.5 inches long and light brown; cone scales are thin and much longer than they are wide.

**Flower:** Monoecious; male is a yellow catkin; female is a pale green strobilus.

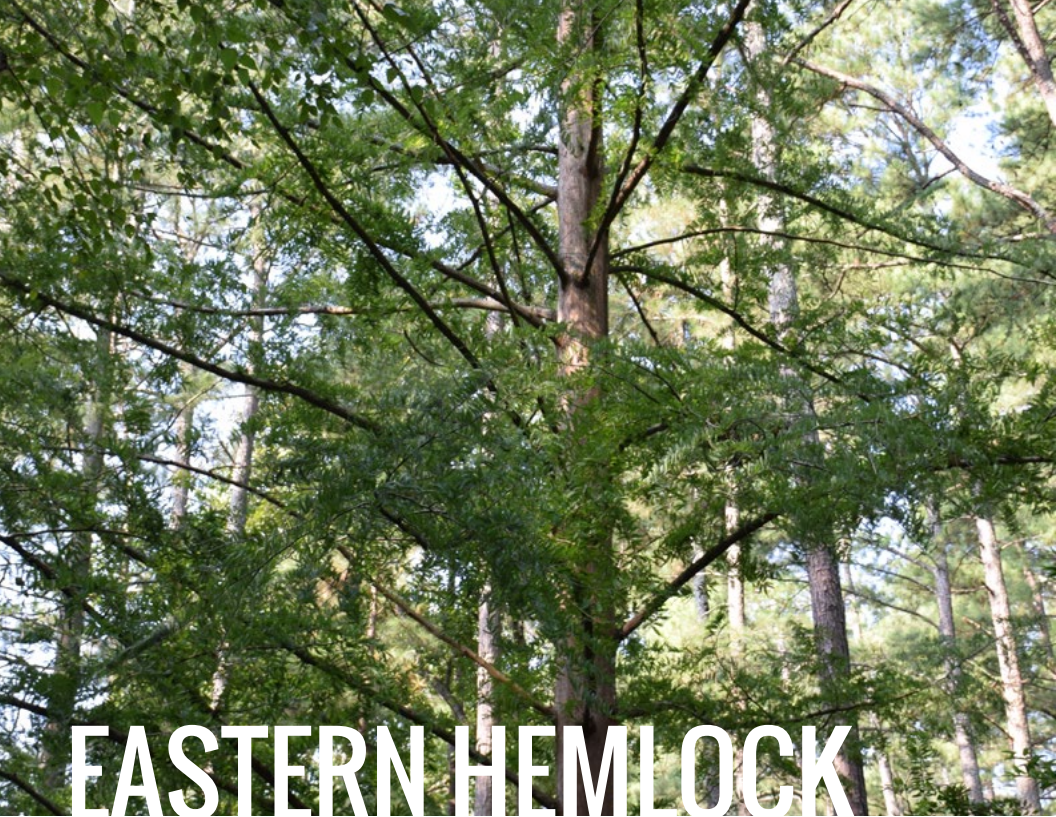
**Bark:** Dark red-brown and furrowed.

**Location/Other:** Native to the southern Appalachians; dry, mountain slopes and ridges.









# EASTERN HEMLOCK

## TSUGA CANADENSIS

**Height:** 60-70'

### Characteristics

**Leaf:** Lacy evergreen tree; leaves are 1/3 to 2/3 of an inch long and taper from the base to the tip; two white lines are on the lower surface of the needles; needles are usually two ranked, giving a flattened appearance to the foliage; some needles turn upside down along the axis of the branch.

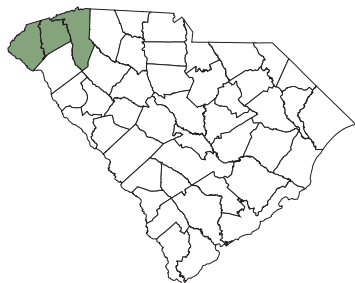
**Cone:** Light brown and usually remain on the tree until the following spring.

**Flower:** Monoecious; male is a yellow catkin; female is a pale green strobilus.

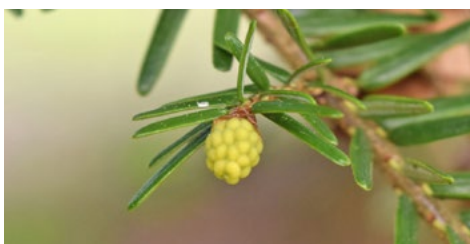
**Bark:** Smooth and gray when young; becomes dark red-brown, very thick and rough with deep furrows as tree gets older.

**Location/Other:** Mountains; cool, moist areas, especially mountain slopes and streams; very shade tolerant; hemlock woolly adelgid has dramatically reduced stands of eastern hemlock in South Carolina.

**Use:** Ornamental; minor commercial value.









# EASTERN WHITE PINE

## PINUS STROBUS

**Height:** 80-100'

### Characteristics

**Leaf:** Needles are in fascicles of five and 3 to 5 inches long with a blueish-silvery tinge; only pine in the East to have five needles per fascicle.

**Cone:** Cone is 4 to 8 inches long; more open and delicate.

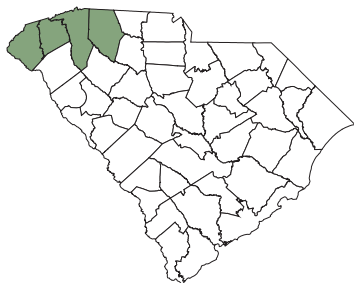
**Flower:** Monoecious; male is yellow catkin; female is an egg-shaped strobilus.

**Bark:** Dark green and smooth on young trees; closely fissured with minutely scaly surface on older trees.

**Location/Other:** Mountains and upper Piedmont; moist, sandy loam soils and those with small particle clay; intermediate shade

tolerance; branches grow in whorles around the trunk for every year of tree age.

**Use:** Used for toys, boxes, furniture and cabinet work; planted statewide for ornamental and Christmas trees.









# LOBLOLLY PINE

## PINUS TAEDA

**Height:** 80-100'

### Characteristics

**Leaf:** Needles are 6 to 9 inches long and in fascicles of three, occasionally in pairs.

**Cone:** Cone is 2 to 6 inches long with a spine on scale tips; not stalked.

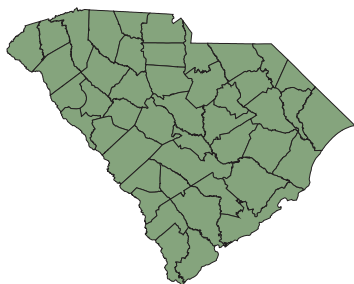
**Twig:** Buds are covered with reddish-brown scales.

**Bark:** Thick and dark-reddish brown.

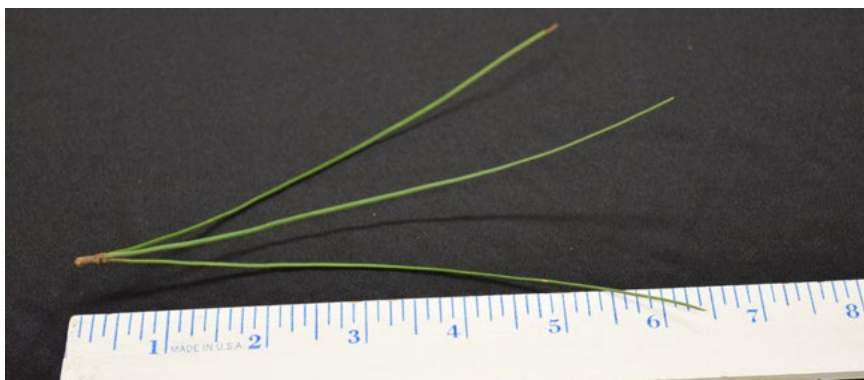
**Location/Other:** Statewide except for the upper Piedmont and mountains; planted statewide; site various; does best on moist, well-drained soil; moderate shade tolerant; crown is rounded, and the trunk is tall and straight; most common species in the state; national champion (height: 170.5 feet tall,

circumference: 181 inches) is in Congaree National Park.

**Use:** Most commercially important timber species in South Carolina; used for lumber, plywood and pulpwood.









# LONGLEAF PINE

## PINUS PALUSTRIS

**Height:** 80-100'

### Characteristics

**Leaf:** Needles are 8 to 20 inches long and in fascicles of three; they are crowded into dense tufts toward the ends of branches.

**Cone:** Cone is 6 to 10 inches long and is the largest of any southern pine.

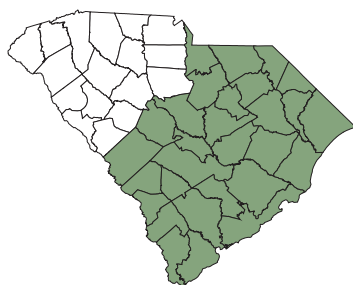
**Flower:** Monoecious; male is a large, rose purple catkin; female is a large, dark purple strobilus in clusters.

**Bark:** Thin and scaly when young becoming orange-brown with flat plates when older.

**Location/Other:** Coastal plain and sandhills; pure stands on well-drained, sandy soils; mixed stands in coastal flatwoods;

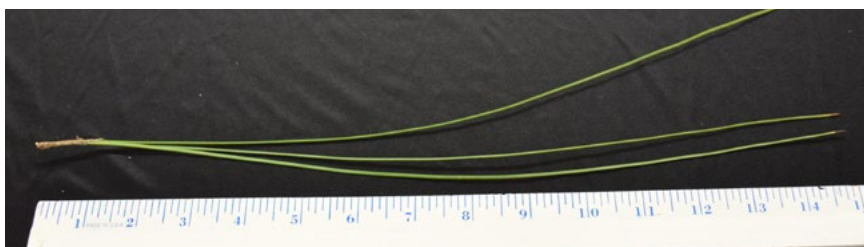
fire tolerant; very shade tolerant; seedlings remain in a grass stage for five to 10 years in which the stem grows in thickness rather than height and the taproot develops rapidly.

**Use:** Used for lumber, poles, pilings and plywood; sap was previously collected for processing into turpentine; seeds are eaten by squirrels, turkey, and songbirds.





# NEEDLE-LEAF CONIFER





# POND PINE

## PINUS SEROTINA

**Height:** 40-70'

### Characteristics

**Leaf:** Needles are 6 to 8 inches long and in fascicles of three.

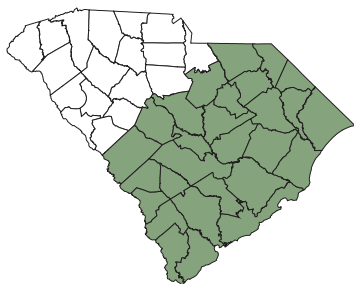
**Cone:** Egg-shaped and tend to remain closed for many years; serotinous as they depend on fire for regeneration.

**Flower:** Monoecious; male is a yellow catkin; female is a red-green strobilus.

**Bark:** Dark red-brown, scaly and divided by shallow furrows.

**Location/Other:** Coastal plain and sandhills; swamps, low wet flats, stream borders and branch heads; intolerant to shade; epicormic needles protrude from the trunk.

**Use:** Wood is very resinous and heavy and used for lumber and pulpwood.









# POND CYPRESS

## TAXODIUM DISTICHUM VAR. NUTANS

**Height:** 70-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are scale-like and pressed against twigs in several ranks; similar to baldcypress but not as feathery.

**Fruit:** Globose gray-brown cone with peltate scales; 1/2 to 3/4 of an inch long; scales are deciduous.

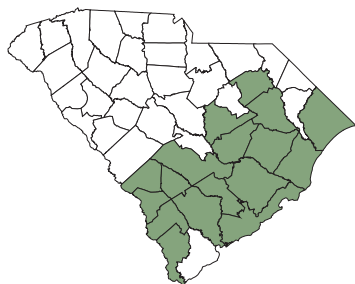
**Flower:** Monoecious; male flowers are greenish and in hanging panicles; females are greenish and subglobose.

**Bark:** Bark is thick for fire resistance.

**Location/Other:** Coastal plain, black water systems and Carolina bays; shallow ponds and poorly drained areas;

intermediate shade tolerance; smaller tree than baldcypress with crowns often flat-topped.

**Use:** Less commercially important.











# SHORLEAF PINE

## PINUS ECHINATA

**Height:** 70-100'

**Use:** Used in plywood, veneer and pulpwood.

### Characteristics

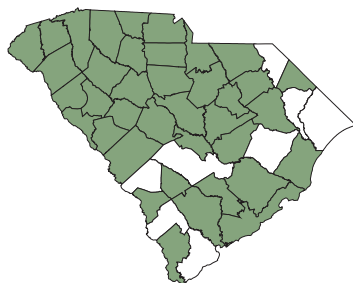
**Leaf:** Needles are 3 to 5 inches long and in fascicles of two and three.

**Cone:** Smallest cones of southern pines; 1.5 to 2.5 inches long with a spine on the scale tip.

**Flower:** Monoecious; male is a rose-purple catkin; female is a pale, red strobilus.

**Bark:** Often has small round holes that often appear damp with resin; these holes are pitch pockets;

**Location/Other:** Statewide; mostly in the Piedmont; dry upland soils; intolerant to moderately tolerant to shade.









# SLASH PINE

## PINUS ELLIOTTII

**Height:** 60-100'

### Characteristics

**Leaf:** Needles are 8 to 12 inches long, dark green and in fascicles of two or three.

**Cone:** Reddish-brown and 3 to 6 inches long with inconspicuous, small spines; has a 1-inch stem unlike other South Carolina pines; appear shiny.

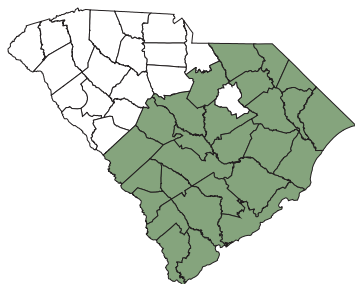
**Flower:** Monoecious; male is a dark purple catkin; female is a pink strobilus.

**Bark:** Thin, red-brown and scaly when young; becomes thick, orange-brown and platy when older.

**Location/Other:** Southern tip of the state; planted throughout the coastal plain and sandhills; coastal flatwoods on low ground

and swamp hummocks; old fields in sandhills except deep sands; intermediate shade tolerance; buds are covered with silvery brown scales.

**Use:** Sap was previously collected for processing into turpentine









# SPRUCE PINE

## PINUS GLABRA

**Height:** 80-100'

### Characteristics

**Leaf:** Needles are in clusters of two, 3 inches long and dark green; needles have an aromatic citrus smell.

**Cone:** Gray-brown with thin scales; length is 1.5 to 2.5 inches.

**Flower:** Monoecious; male is a short, yellow catkin; female is a green strobilus with a red tinge.

**Bark:** Dark-gray, thin and smooth; small scales and few furrows on older trees; has the appearance of black cherry or black oak.

**Location/Other:** Lower coastal plain and black water floodplains; moist, sandy loam or sandy soils between pine lands and alluvial

bottoms; moderately shade tolerant; very similar to white pine.

**Use:** Wood is used for pulpwood and sawtimber.





## NEEDLE-LEAF CONIFER





# VIRGINIA PINE

## PINUS VIRGINIANA

**Height:** 30-60'

### Characteristics

**Leaf:** Needles are 1.5 to 3 inches long, in fascicles of two, yellow green and usually twisted.

**Cone:** Cones are 1.5 to 2.5 inches long and have deep purple inner lips; persistent for two years.

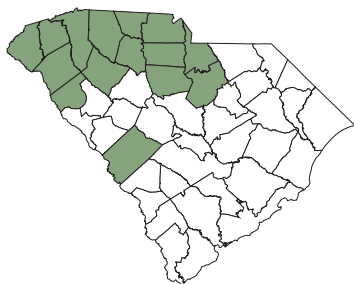
**Flower:** Monoecious; males are orange-brown catkins; females are green strobili with red tips.

**Bark:** Typically thin, smooth or scaly on the upper bole.

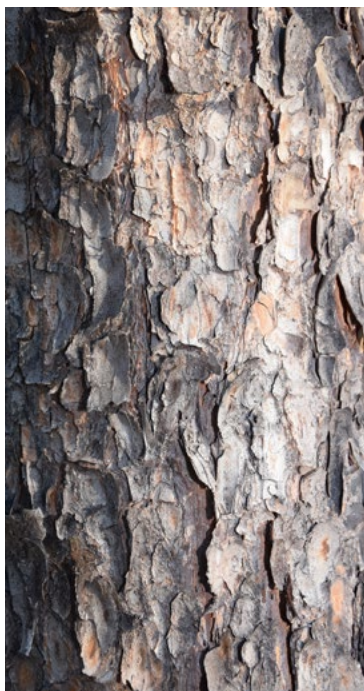
**Location/Other:** Upper Piedmont; occasionally in the lower Piedmont; heavy clay soils and poor soils where other trees

cannot compete; very rocky ground; shade intolerant.

**Use:** Minor commercial importance.









# ATLANTIC WHITE CEDAR

## CHAMAECYPARIS THYOIDES

**Height:** 60-80'

### Characteristics

**Leaf:** Leaves are scale-like, about 1/8 of an inch long and overlapping; blue-green color; glandular on the back and flattened.

**Cone:** Cones are 1/4 of an inch in diameter, somewhat fleshy and bluish-purple when ripe; cone scales end in small stub.

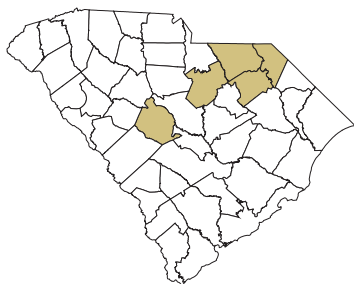
**Flower:** Monoecious; males are yellow and oblong; females are greenish and subglobose.

**Bark:** Ashy-gray to reddish-brown.

**Location/Other:** Coastal plain, including sandhills; fresh water swamps and bogs, wet depressions, stream banks, peat

soils and sphagnum covered sandy soils; intermediate shade tolerance; typically prone to windthrow because of shallow root system.

**Use:** Niche lumber species; used for fishing lures, woodworking, log cabins and organ pipes.





## SCALE-LEAF CONIFER





# EASTERN REDCEDAR

## JUNIPERUS VIRGINIANA

**Height:** 40-60'

### Characteristics

**Leaf:** Young leaves are needle-like, one-half inch long and prickly; older leaves are 1/16 of an inch long, scale-like, dark green and glandular; leaves are aromatic.

**Cone:** Fleshy, round, 1/4 to 1/3 of an inch in diameter, pale green and turn dark blue when mature.

**Flower:** Dioecious; males are yellow-orange and oblong; females are light blue-green and globose.

**Bark:** Light reddish-brown, thin and separates into long, peeling strips.

### Location/Other:

Statewide; wide range of soils; best on

light loam of limestone origin; common on poor soils in Piedmont; intolerant to shade; southern redcedar is found along the coastal plain region of South Carolina.

**Use:** Natural insect repellent; used for cedar chests, cabinetwork and carvings; wood is slow to decay so it is often used for fence posts; cedar oil is used in medicine and perfumes; sometimes selected as Christmas trees.





## SCALE-LEAF CONIFER





# BLACKGUM

## NYSSA SYLVATICA

**Height:** 50-100'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are simple and tend to cluster at the tip of twigs; one of the first to change color in the fall, turning to scarlet.

**Fruit:** Round, dark blue and clustered on stalks up to 1.5 inches long.

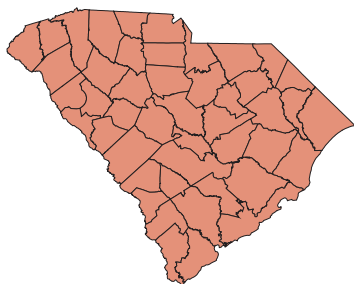
**Flower:** Males are small, light green and in heads on long stalks; females are small, green and in flowered racemes.

**Twig:** Slender, red-brown and glabrous; has a diaphragmed pith; has three bundle scars on the leaf scar.

**Bark:** Thick and gray to light brown; deeply fissured; becomes blocky when it gets older.

**Location/Other:** Statewide; variety of sites but best on well-drained, light textured soils; in lowlands, loams and clay; loams of lower slopes and coves of uplands; shade intolerant; limbs tend to form right angles to the trunk.

**Use:** Fruit is consumed by many wildlife species; used for pulp, veneer, furniture and containers.









# BLUEJACK OAK

## QUERCUS INCANA

**Height:** 15-30'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 2 to 5 inches long and one-half to 1 inch wide; not lobed, have a bluish tint and woolly underside with stout yellow midrib.

**Fruit:** Acorns are nearly globular with longitudinal striations; mature in one year.

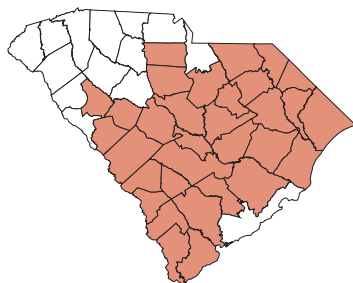
**Flower:** Monoecious; males are pendulous catkins; females are short spikes found at the leaf axil.

**Twig:** Slender, gray-brown and angular with hairs; reddish-brown buds are sharply pointed.

**Bark:** Reddish-brown to black and broken into small blocks.

**Location/Other:** Sandhills and coastal plain; dry, sterile, sandy soil; intolerant to shade; scrub oak as it grows in deep sands, has poor form, and holds onto dead limbs for a long period of time.

**Use:** Minor commercial value; Used for fuel and fence posts.









# EASTERN REDBUD

## CERCIS CANADENSIS

**Height:** 40'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 3 to 5 inches wide and heart-shaped with a pointed tip; turn yellow in the fall.

**Fruit:** Flat bean-like seed pod that is 2 to 3 inches long; often stays on through the winter.

**Flower:** Pinkish-lavender and are typically the first to bloom in the spring.

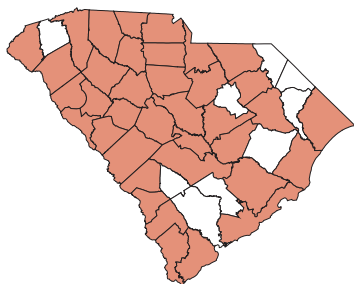
**Twig:** Slender, angled to zigzag, and have no terminal bud.

**Bark:** Thin, gray and smooth when young; becomes darker, furrowed and scaly when tree matures.

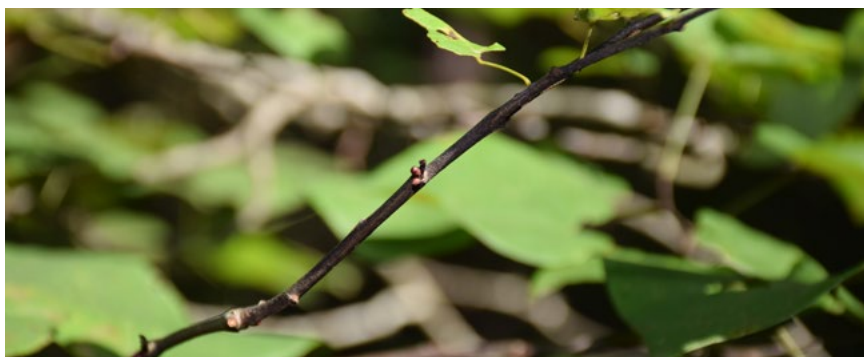
**Location/Other:** Statewide; rich, moist

soil near streams, fertile bottoms and lower slopes; shade tolerant.

**Use:** Popular ornamental tree.









# FLOWERING DOGWOOD

## CORNUS FLORIDA

**Height:** 30'

### Characteristics

**Leaf:** Opposite leaf arrangement; leaves are oval and have a curved vein.

**Fruit:** Shiny red berries clustered at the end of a long stalk.

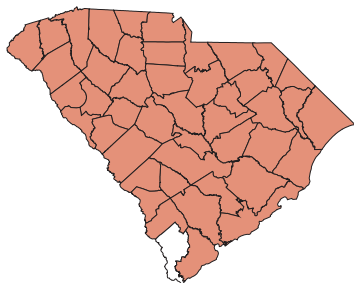
**Flower:** What is thought to be the flower is composed of four large white petal-like bracts; the true flower is a small greenish-white compact head in the center of the showy bracts.

**Twig:** Twigs have a telescoping appearance.

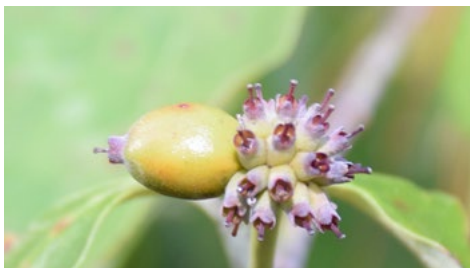
**Bark:** Dark brown to nearly black and broken up into small blocks; bark resembles alligator hide, but blocks are smaller than persimmon.

**Location/Other:** Statewide; moist, rich deep soils; very shade tolerant.

**Use:** Popular ornamental tree; spindles in textile industry.









# LAUREL OAK

## QUERCUS LAURIFOLIA

**Height:** 60-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are semi-deciduous, which means the leaves of the current year remain on the tree through the winter; leaves are 2.5 to 4 inches long and one-half inch to 1 inch wide; almost elliptical in shape with the widest part slightly toward the pointed apex; some leaves are irregularly lobed; prominent yellow midrib.

**Fruit:** Acorn is ovoid, dark brown to black and in a thin saucer-like cup; mature in two years.

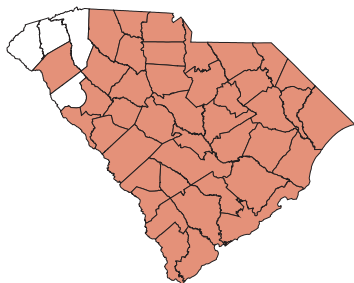
**Flower:** Monoecious; males are pendulous yellow-green catkins; females are small spikes.

**Twig:** Slender; red-brown and smooth with reddish brown buds that are sharply pointed and clustered at the end.

**Bark:** Dark brown; moderately smooth on young trees; black and deeply furrowed into broad flattened ridges on older trees.

**Location/Other:** Coastal plain; along streams and swamps; planted in a variety of sites; moderately intolerant to shade.

**Use:** Mostly used for fuel.









# LIVE OAK

## QUERCUS VIRGINIANA

**Height:** 40-50'

### Characteristics

**Leaf:** Alternate leaf arrangement; evergreen; leaves are 2 to 5 inches long, one-half inch to 2.5 inches wide and elliptical; leaf edge tends to roll under; upper surface is dark, glossy green.

**Fruit:** Acorns are in clusters of three to five; borne on stalks 1 to 2 inches long; nearly black and 1 inch long; mature in one year.

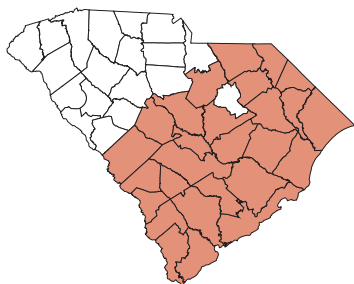
**Flower:** Monoecious; male is a pendulous catkin; female is in spikes.

**Twig:** Slender, gray-brown and pubescent; has multiple egg-shaped terminal buds.

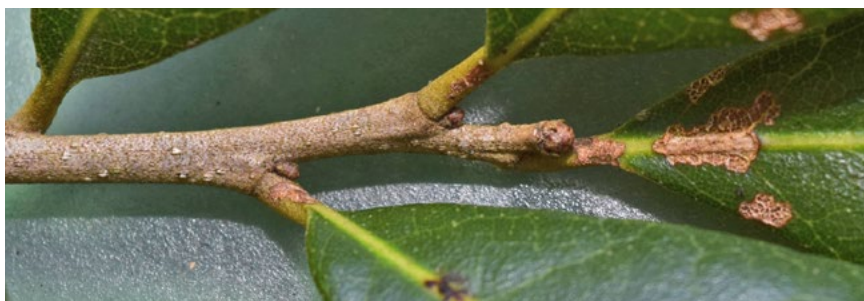
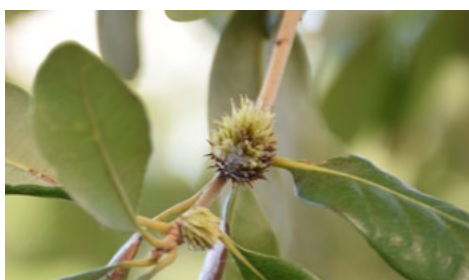
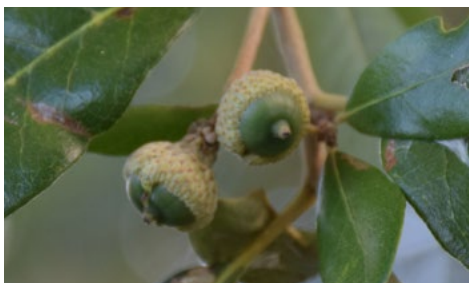
**Bark:** Dark, reddish-brown and slightly furrowed.

**Location/Other:** Coastal plain; dry or moist sandy soils; planted on a variety of sites; intolerant to shade; crown is widespreading, and branches are gnarled; Spanish moss commonly found on live oaks; signature tree of coastal South Carolina.

**Use:** Previously used in ship making; mostly used as an ornamental.









# PAWPAW

## ASIMINA TRILOBA

**Height:** 30'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 8 to 12 inches long, 4 to 6 inches wide, simple and pinnate; smooth and dark green above; paler beneath; base tapers into a short, stout petiole.

**Fruit:** Large oblong berry that is 2 to 5 inches long; green at first and then turns yellow-brown when it ripens between August and October; edible with a flavor similar to a banana; largest native fruit in North America.

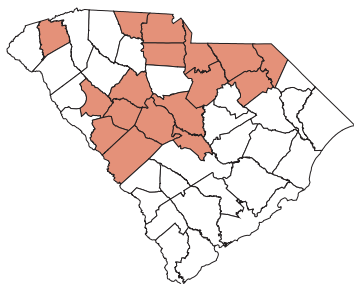
**Flower:** Monoecious; purplish to brown; 1.5 to 2 inches in diameter with six petals; appears with or before leaves.

**Twig:** Slender and gray-brown with rust-colored hairs; has a diaphragmed pith.

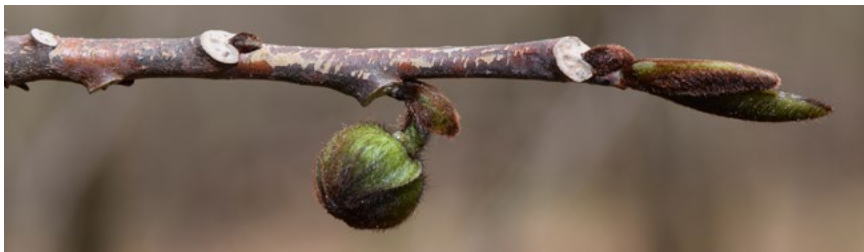
**Bark:** Thin, gray-brown and blotchy; smooth or with wart-like lenticels.

**Location/Other:** Rich, moist soils along streams and in bottoms.

**Use:** Ornamental; wildlife feed on the fruit when ripe.









# PERSIMMON

## DIOSPYROS VIRGINIANA

**Height:** 60'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are oval and rounded at the base; tip is pointed; Buds are black or grayish and triangular.

**Fruit:** Orange to reddish-purple multi-seeded berry; can be eaten when ripe; many wildlife species eat the fruit.

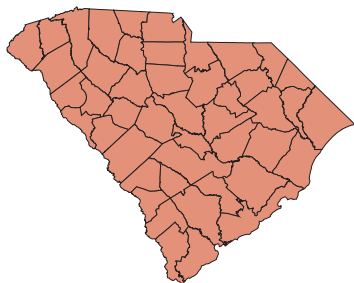
**Flower:** Male flowers are in clusters of two or three, and the females are a single flower; yellow-green.

**Twig:** Slender, gray-brown and pubescent; zigzag with lenticels; has a diaphragmed pith.

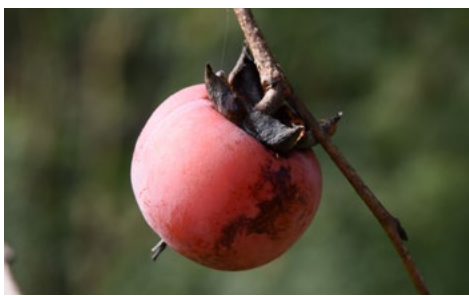
**Bark:** Gray-brown to nearly black and broken into small blocks like alligator hide.

**Location/Other:** Statewide; Deep, rich bottomland and well drained sand upland; Very shade tolerant.

**Use:** Used for shuttles, mallets and furniture veneer; golf club heads used to be made with persimmon woods.









# REDBAY

## PERSEA BORBONIA

**Height:** 60'

### Characteristics

**Leaf:** Evergreen; leaves are 3 to 6 inches long and 3/4 to 1 1/2 inches wide; lance-shaped, thick and leathery with edges slightly rolled under; insect galls are commonly found on the leaf; crushed leaves are aromatic.

**Fruit:** One-half inch to 5/8 of an inch long; nearly round and dark blue-black with a six-lobed cup at the base.

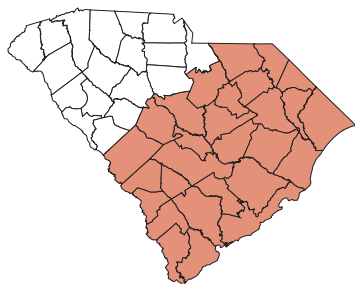
**Flower:** Light yellow with several in a long-stalked cluster at the leaf base.

**Twig:** Slender, dark green and angled; covered in rust-colored hairs.

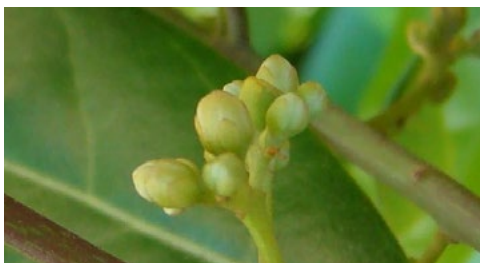
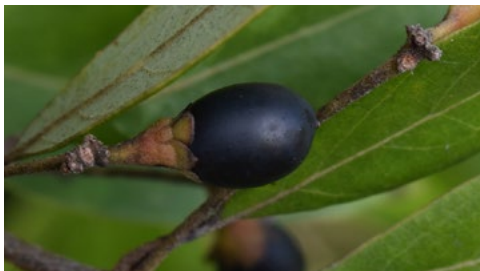
**Bark:** Dark or reddish-brown; furrowed into broad scaly ridges.

**Location/Other:** Coastal plain and lower Piedmont; moist soils of bottomlands and swamps; also in sandy uplands; shade tolerant; redbay ambrosia beetles are killing redbay trees across the South; redbay ambrosia beetles carry laurel wilt disease and also attack sassafras and avocado.

**Use:** Substitute for bay leaves; sometimes used in cabinetry and interior work.









# SOUTHERN MAGNOLIA

## MAGNOLIA GRANDIFLORA

**Height:** 60-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; evergreen; leaves are 5 to 10 inches long and 2 to 3 inches wide; upper surface is glossy green; leathery, brownish and hairy on the underside; margin is smooth.

**Fruit:** Fruit is 3 to 4 inches long and made up of numerous pod-like structures that each contain two to three crimson seeds that hang from the pods on slender stalks when ripe; ripens in September.

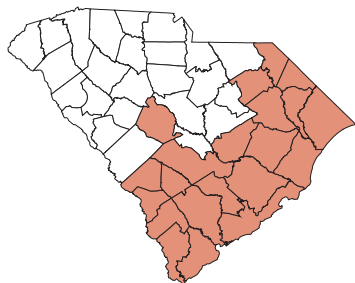
**Flower:** White, fragrant and 6 to 9 inches in diameter; blooms around June.

**Twig:** Stout, red-brown and tomentose; terminal buds are 1 to 1.5 inches long and woolly.

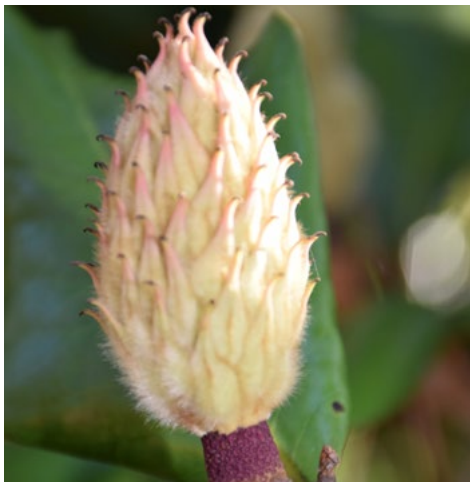
**Bark:** Thin and light brown to gray.

**Location/Other:** Coastal plain and planted statewide; moist, well drained soils along streams and near swamps; moderately shade tolerant.

**Use:** Popular ornamental tree iconic of the South; used for crates, boxes, flooring and doors.







John Ruter,  
University of  
Georgia, Bugwood.  
org

# SWAMP TUPELO

## NYSSA BIFLORA

**Height:** 70-100'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 1.5 to 4 inches long and 3/4 to 1.5 inches wide; leaves are oblanceolate, oblong or elliptical, and margins are entire; dark green, lustrous upper leaf surface, pale lower surface, and smooth on both surfaces; similar to a live oak leaf.

**Fruit:** 1/3 of an inch to one-half inch long, dark blue on a slender stalk and usually in pairs; seed has prominent rounded ridges.

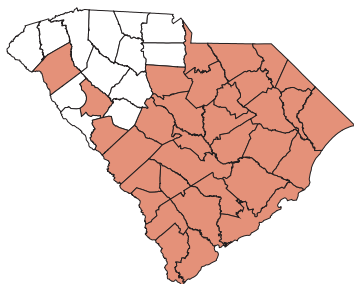
**Flower:** Similar to a blackgum flower; male is small, green and in large clusters on long stalks; female is small, green and in pairs on short stalks.

**Twig:** Similar to a blackgum twig; slender, red-brown and glabrous; has a diaphragmed pith.

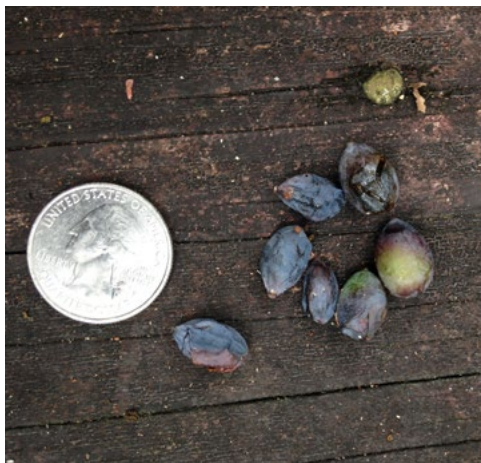
**Bark:** Gray to dark reddish-brown and deeply furrowed.

**Location/Other:** Coastal plain; along streams, edges of ponds and other wet areas; intolerant to shade; butt is conspicuously swollen and tapers upward.

**Use:** Pulpwood and lumber; used for veneer, furniture and containers.









# SWEETBAY

## MAGNOLIA VIRGINIANA

**Height:** 20-60'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 4 to 6 inches long and oblong to elliptical with a blunt pointed apex and smooth margin; upper leaf is bright green; lower side is white.

**Fruit:** An aggregate of smooth red follicles containing red seeds.

**Flower:** Fragrant and cup-shaped with nine to 12 creamy white concave petals; bloom around June.

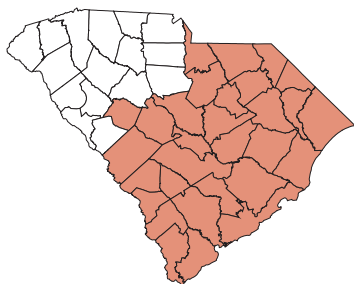
**Twig:** Slender, bright green and hairy; terminal bud looks like a crooked green finger.

**Bark:** Thin, light gray and smooth becoming

scaly as the tree gets older.

**Location/Other:** Coastal plain; swamps and moist low areas; intermediate shade tolerance; foliage and twigs have a spicy fragrance.

**Use:** Ornamental; wood is soft and used for minor products such as handles and core stock for lower-grade furniture.









# WILLOW OAK

## QUERCUS PHELLOS

**Height:** 50-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; 2 to 5 inches long, 1/3 of an inch to 1 inch wide and linear in shape; distinguishable from most other oaks because of narrow leaves without lobes or teeth.

**Fruit:** Acorns are one-half inch long, greenish-brown and in a thin saucer-like cup; mature in two years.

**Flower:** Monoecious; males are pendulous yellow-green catkins; females are in spikes.

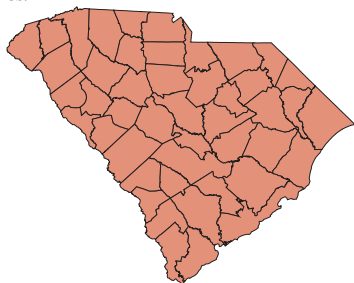
**Twig:** Slender, red-brown and glabrous; has multiple terminal buds that are small, reddish-brown and sharply pointed.

**Bark:** Smooth steel-gray to brown on young trees; becomes dark gray to black with broad

ridges on older trees.

**Location/Other:** Coastal plain and most of Piedmont except northwest corner of the state; wet, rich bottomlands and along streams and swamps; planted on a variety of sites; intolerant to shade.

**Use:** Popular ornamental from the 40s through the 60s; helped expand natural range; commercially grouped with other red oak species.









# AMERICAN BEECH

## FAGUS GRANDIFOLIA

**Height:** 60-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are elliptical and tapering to point at tip; leaf margins have small, prominent in-curved teeth; lateral veins extend from the primary vein to the tip of each tooth; leaves persist through winter.

**Fruit:** Three-sided brown nut that is 1/2 to 3/4 of an inch long; two and sometimes three are enclosed in a woody bur that is covered with soft spines.

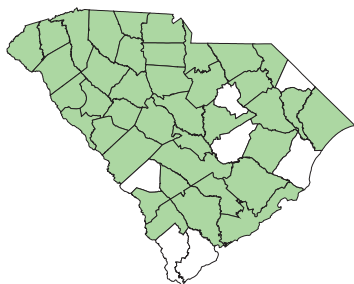
**Flower:** Monoecious; males are in globose heads hanging from a slender 1-inch stalk; females are in greenish spikes.

**Twig:** Slender and sometimes appear to zigzag; terminal bud is long and slender.

**Bark:** Blue-gray, thin, and smooth; initials or names are often carved on it.

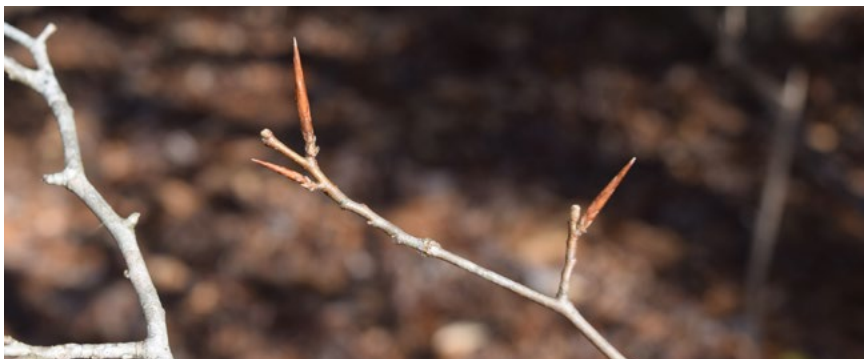
**Location/Other:** Statewide; moist soils in coves, lower slopes, along streams and bottomlands; very shade tolerant.

**Use:** A heavy dense valuable timber species used for furniture and tool handles; typically hollow in the South.





## TOOTHED SIMPLE LEAF





# AMERICAN ELM

## ULMUS AMERICANA

**Height:** 100'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 4 to 6 inches long and 2 to 3 inches wide; margin is doubly toothed; leaves have a sharp tip, lopsided base and are rough on the underside and top side.

**Fruit:** Clustered on long stems with the small seed encased in a flattened, papery wing-like covering.

**Flower:** Monoecious; in drooping clusters and long-stalked; reddish green; open prior to leaves emerging.

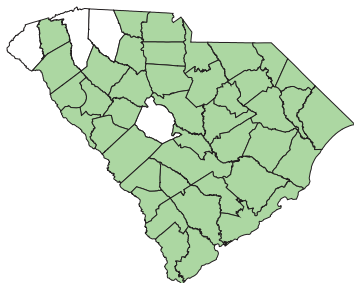
**Twig:** Slender, red-brown and zigzag;

**Bark:** Ashy-gray with broad flat-topped fissures; mostly separated by diamond-shaped

fissures and alternate light and dark layers in the outer bark; turn into flat-like plates as the tree gets bigger.

**Location/Other:** Statewide; floodplains; various sites; but does best in rich, well drained loamy soils; intermediate tolerance to shade; Dutch elm disease has nearly wiped out American elms; tree is vase-shaped.

**Use:** Valuable shade tree or street tree.





## TOOTHED SIMPLE LEAF





# AMERICAN HOLLY

## ILEX OPACA

**Height:** 40-70'

### Characteristics

**Leaf:** Alternate leaf arrangement; evergreen tree; leaves are persistent and leathery with sharp-pointed spines on the margin.

**Fruit:** Berry-like and contains several one-seed nutlets.

**Flower:** Dioecious; small and green-white; has four petals; appear in late spring.

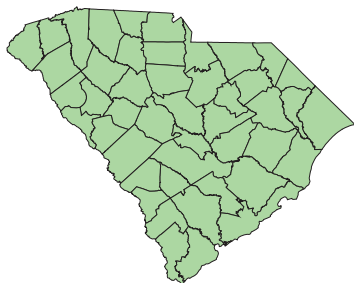
**Twig:** Slender, green and glabrous with spur shoots.

**Bark:** Gray, thin and often warty.

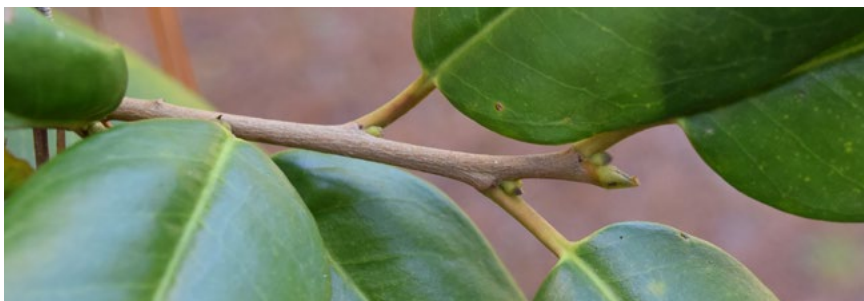
**Location/Other:** Statewide; rich, moist bottomland, swamp borders, and dry

protected slopes; very shade tolerant.

**Use:** Popular ornamental tree; Greens often used for Christmas decorations; wood is used for inlays in cabinetwork, handles and furniture.









# AMERICAN HORNBEAM

## CARPINUS CAROLINIANA

**Height:** 20-35'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are elliptical with a rounded base and pointed tip; margin is doubly-toothed; tufts of hairs are in axils of veins.

**Fruit:** Small wingless nut attached to a three-lobed leafy green bract in clusters.

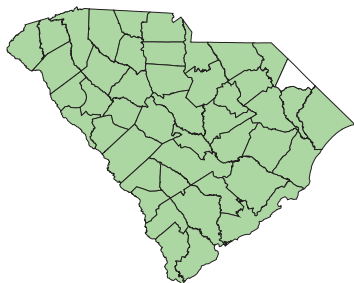
**Flower:** Monoecious; males are yellow-green catkins that are 1 to 2 inches long; females are yellow-green catkins that are 1/2 to 3/4 of an inch long.

**Twig:** Slender, zigzag, red-brown and glabrous.

**Bark:** Blue-gray, smooth, tight and thin with muscle-like flutes;

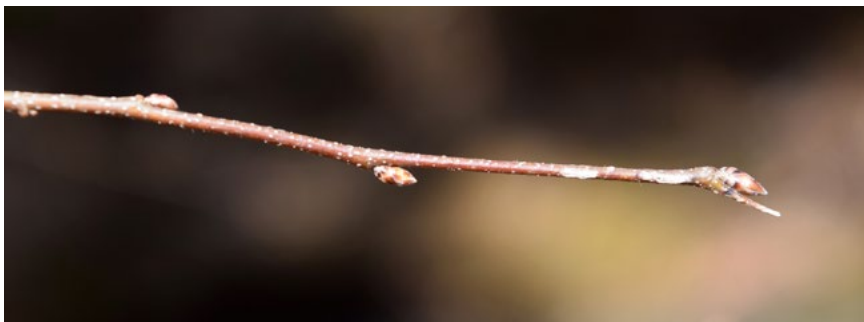
**Location/ Other:** Statewide; deep, rich, moist loams along streams and in bottoms; shade tolerant.

**Use:** Has little commercial value; nutlets and buds are eaten by wildlife.





## TOOTHED SIMPLE LEAF





# BLACK CHERRY

## PRUNUS SEROTINA

**Height:** 80'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are elliptical, finely toothed, shiny dark green and often has reddish-brown hair along the underside of the midrib near the base; has two tiny glands on either side of the midrib at the leaf base.

**Fruit:** Drupe, almost black when ripe.

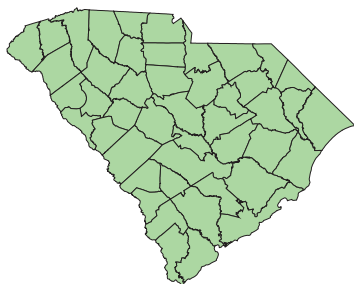
**Flower:** Flowers are small and white; hang in clusters that are 3 to 6 inches long; five petals.

**Twig:** Have prominent horizontal lenticels and are bitter to the taste.

**Bark:** Reddish-brown to black, smooth with horizontal lines, becoming irregularly fissured and scaly.

**Location/Other:** Statewide; rich, deep, moist soils, but found on a variety of sites; intolerant to shade; generally poor form and quality in South Carolina; many of the black cherry trees in the state are infested with black knot disease, which is a gelatinous fungus easily seen on the trunk and branches.

**Use:** Highly valued for flooring and furniture; wild cherries furnish food for many songbirds, turkeys, squirrels, raccoons, deer and rabbits.





## TOOTHED SIMPLE LEAF





# BLACK WILLOW

## SALIX NIGRA

**Height:** 40-60'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 3 to 6 inches long and slender; tips are strongly tapered with finely toothed margins; leaf top is shiny green; underneath is lighter in color.

**Fruit:** Ovoid reddish-brown capsule that contains many small seeds.

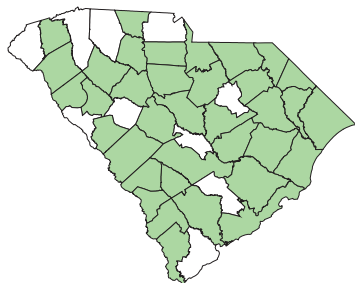
**Flower:** Dioecious; males are yellow pendulous catkins; females are white pendulous catkins.

**Twig:** Reddish-brown and brittle at joints; terminal buds are absent.

**Bark:** Dark brown to black on large trees and heavily ridged.

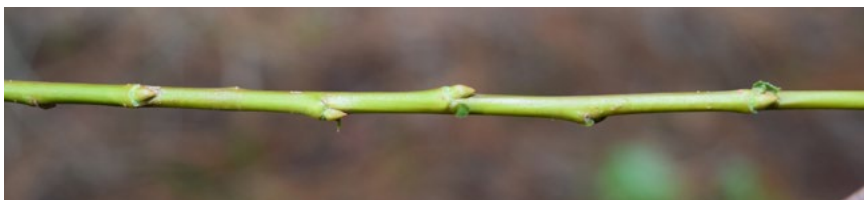
**Location/Other:** Statewide; most common on river margins, stream banks, swamps, wet bottomlands and sandbars; very intolerant to shade.

**Use:** Cultivars are used for landscaping; cuttings will easily take root and can be planted along banks to help with bank stabilization.





## TOOTHED SIMPLE LEAF





# CAROLINA LAURELCHERRY

## PRUNUS CAROLINIANA

**Height:** 30-40'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are evergreen, smooth or sparsely toothed, and lustrous green with short, stout, orange petiole.

**Fruit:** Black or blue-black oblong drupe; a variety of bird species eat the fruit.

**Flower:** Perfect; appear in short, creamy white racemes; has five petals.

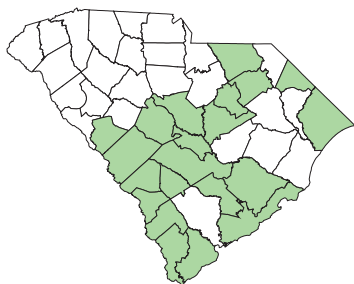
**Twig:** Slender, red-brown and smooth with spur shoots present.

**Bark:** Gray and smooth on young stems and becomes roughened with age.

**Location/Other:** Coastal plain but planted

inland; rich, moist soils; wilted leaves and twigs contain prussic acid that can be fatal to ruminants when eaten.

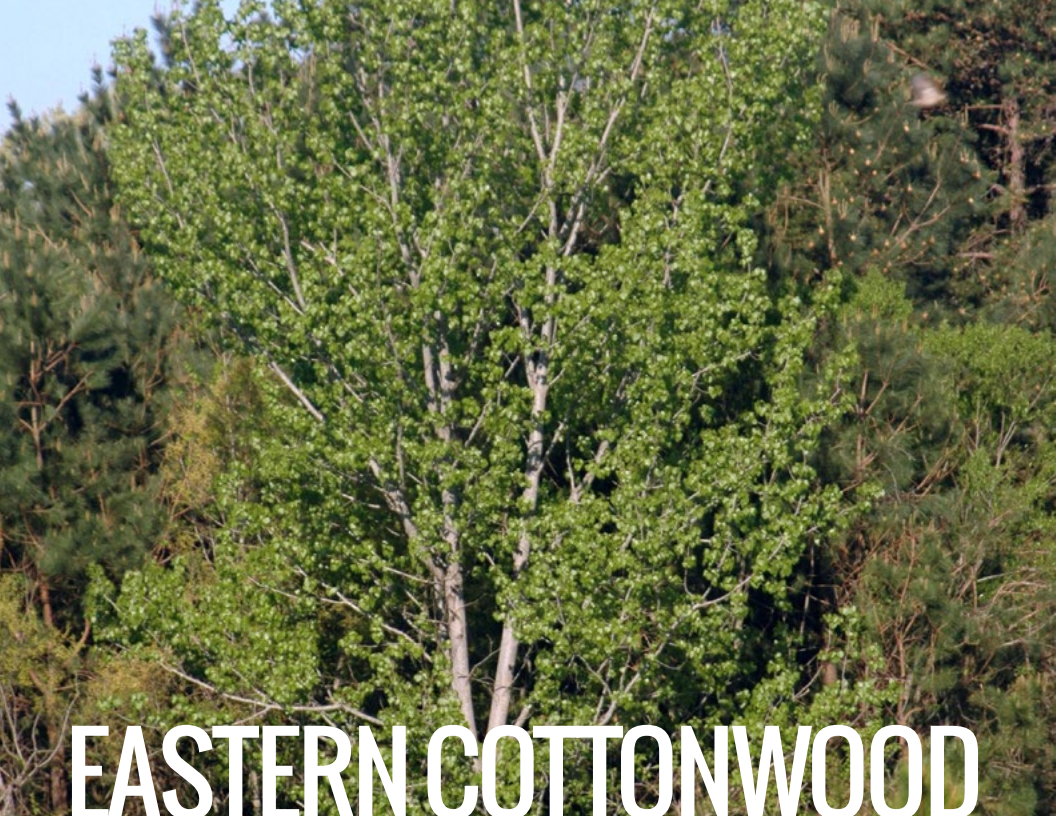
**Use:** Valued as an ornamental; used for hedgerows and windbreaks.





## TOOTHED SIMPLE LEAF





# EASTERN COTTONWOOD

## POPULUS DELTOIDES

**Height:** 125-150'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are triangular in shape with coarsely rounded marginal teeth; smooth, lustrous green on top and paler on underside; petiole is flattened.

**Fruit:** Long capsule with three to four valves; tiny cottony seeds.

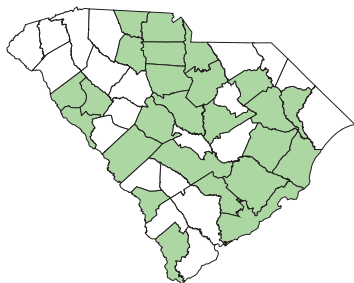
**Flower:** Dioecious; Male catkins are red and 3 to 4 inches long; female catkins are 6 to 8 inches long; appear before the leaves.

**Twig:** Have star-shaped white pith; terminal bud is lustrous brown.

**Bark:** Smooth, yellowish-green on young trees and dark gray and deeply furrowed on older trees.

**Location/Other:** Statewide; along streams, moist alluvia soils and rich bottomlands; very intolerant to shade; known for its rapid growth.

**Use:** Minimal commercial value; cut for pulpwood.





## TOOTHED SIMPLE LEAF





# EASTERN HOP HORNBEAM

## OSTRYA VIRGINIANA

**Height:** 20-30'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 3 to 5 inches long and 1.5 to 2 inches wide; oblong, lance-shaped margin is doubly-toothed; tufts of hairs in axils of veins; often remain into winter.

**Fruit:** Small nut enclosed in an oval, flattened, papery sack; borne in a cone-like cluster.

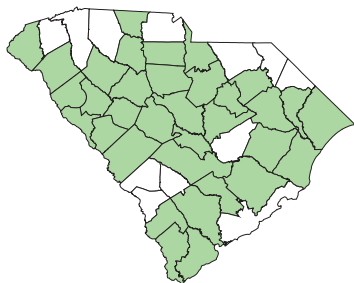
**Flower:** Monoecious; males are preformed green catkins that are 1.5 to 2 inches long; females are catkins in pairs, greenish and 1/2 to 3/4 of an inch long.

**Twig:** Slender, smooth and gray to dark brown; buds are pointed and covered in green and red-brown scales.

**Bark:** Reddish brown; cherry-like on young stems; browner later with shreddy appearance from shaggy plates curving away from the trunk.

**Location/Other:** Statewide; dry slopes and ridges; occasionally in bottoms; shade tolerant; tree gets its name from hop-like fruit.

**Use:** Minimal commercial value; used for mallets, wedges, tool handles and levers.





## TOOTHED SIMPLE LEAF





# HAWTHORN

## CRATAEGUS SPP.

**Height:** 20'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are variable, 2 to 3 inches long, yellow-green with sunken veins above and usually oval or wedge-shaped; margin is notched or toothed.

**Fruit:** Pome that is globose to elliptical; red or yellow.

**Flower:** Showy and white; appear in clusters; has five petals.

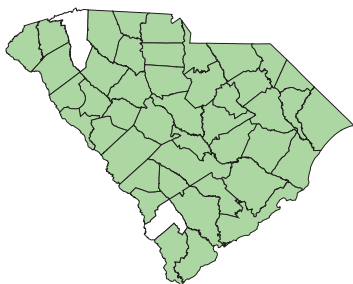
**Twig:** Have straight spines that look like thorns;

**Bark:** Generally thin, gray, and broken into thin, narrow scales on old stems.

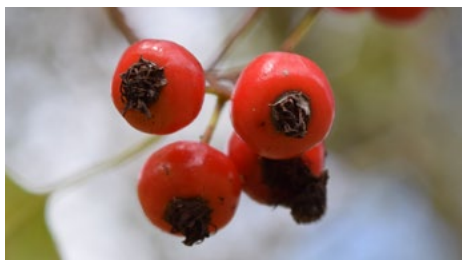
**Location/Other:** Many different species

throughout the state; varied from low swamps of coastal areas to ridges in mountains.

**Use:** Valued as an ornamental.









# LOBLOLLY BAY

## GORDONIA LASIANTHUS

**Height:** 70-80'

### Characteristics

**Leaf:** Evergreen tree with an alternate leaf arrangement; simple; leathery and oblong to lanceolate; leaves are 4 to 6 inches long and 1.5 to 2 inches wide; finely serrated; dark green and shiny above; paler below; has a short petiole.

**Fruit:** Ovoid woody capsule that is 3/4 of an inch long and red-brown; five valves; has small winged seeds.

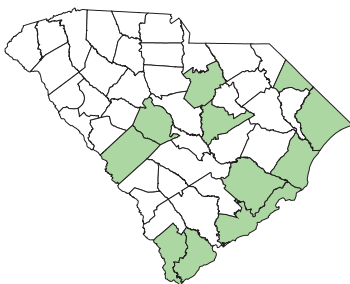
**Flower:** Showy white with five petals; 2 to 2.5 inches in diameter; appear in the summer.

**Twig:** Moderately stout and dark brown.

**Bark:** Thick, dark reddish brown and deeply furrowed with scaly ridges.

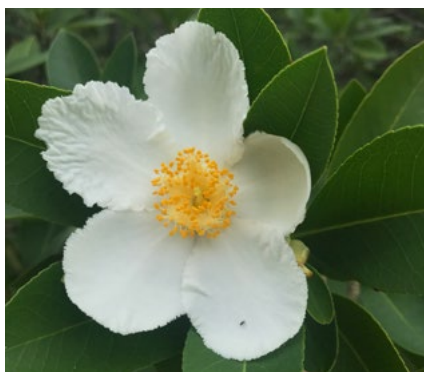
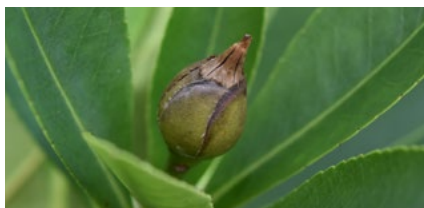
**Location/Other:** Wet habitats, flatwoods and depressions.

**Use:** Minor commercial value.





# TOOTHED SIMPLE LEAF





# RED MULBERRY

## MORUS RUBRA

**Height:** 60'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are variable and may be unlobed, three-lobed or mitten shaped; the three shapes can occur on the same tree; generally rounded, rough and dull in color.

**Fruit:** Dark red to purple, resembles a blackberry, and is edible.

**Flower:** Dioecious; males are greenish in catkins that are 2 to 2.5 inches long; females are green and in dense spikes.

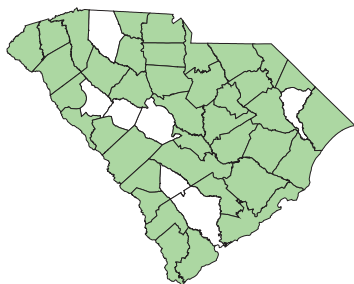
**Twig:** Slender, zigzag and do not have a terminal bud.

**Bark:** Smooth and light gray on young trees; becomes dark brown to gray-brown with

thin, elongated scales in older trees; bleeds a milky sap when the bark is cut into.

**Location/Other:** Statewide; rich, moist soil on flats and protected slopes; shade tolerant.

**Use:** Wood is occasionally used for fence posts, furniture, interior finish and agricultural implements; Wildlife eat the berries.





## TOOTHED SIMPLE LEAF



# RIVER BIRCH

## BETULA NIGRA

**Height:** 40-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are shaped like an arrowhead; margins are coarsely doubly toothed.

**Fruit:** Grow in oblong, erect strobiles that are 1 to 1.5 inches long; has small winged nutlets.

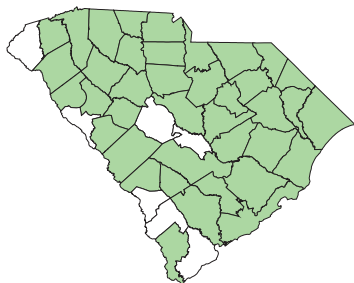
**Flower:** Monoecious; males are preformed catkins that are gray-brown and 3/4 of an inch long; females are light green catkins that are 1 inch long.

**Twig:** Zigzagged, slender and orange-brown to reddish-brown.

**Bark:** Divided into loose, papery scales that are tinged with pink; readily identifiable by its bark.

**Location/Other:** Statewide; along streams and wet bottoms; shade intolerant; Only native birch found at low elevations in the South.

**Use:** Valued landscape tree; due to distribution not a major commercial lumber species; wood is quite hard and used for furniture; birch seeds are eaten by turkey, songbirds and rodents.





## TOOTHED SIMPLE LEAF





# SERVICEBERRY

## AMELANCHIER ARBOREA

**Height:** 50'

### Characteristics

**Leaf:** Alternate leaf arrangement; oval to oblong in shape; 2 to 4 inches long and 1 to 2.5 inches wide; margins are finely toothed; base is cordate; pale and pubescent underside when young.

**Fruit:** Berry-like globose pome; dark red to purple and 1/4 to 1/2 of an inch in diameter; fruits are edible; mature in the summer.

**Flower:** Showy white flowers have five petals that are narrow and 1/2 to 3/4 of an inch long; one of the first flowers to bloom in February; bloom before leaves emerge.

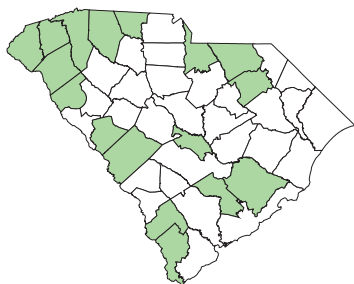
**Twig:** Slender, occasionally zigzag and are brown with numerous pale lenticels; terminal bud is very sharp and tapers up to 3/4 of an inch long; buds generally have green scales with

a reddish tinge on the edges.

**Bark:** Thin, smooth and ashy-gray when young; becomes lightly furrowed with scaly ridges.

**Location/Other:** Piedmont and mountains; variety of sites from dry hillsides and ridges to sandy loam riverbanks; shade tolerant.

**Use:** Minor ornamental and commercial value; wildlife feed on the berries.





## TOOTHED SIMPLE LEAF





# SOURWOOD

## OXYDENDRUM ARBOREUM

**Height:** 50'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 5 to 7 inches long and 1 to 3 inches wide; finely toothed and sour tasting with a row of fine bristles along the midrib on the underside of the leaf; short petiole; turn vivid scarlet in early fall.

**Fruit:** Five-angled, grayish capsule in a cluster; mature in the fall.

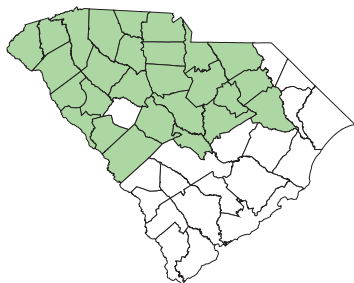
**Flower:** Bell-shaped and in down-turned racemes with five white petals; holds previous year's flower until the next year.

**Twig:** Twigs are often zigzagged or angled and orange-red to red; green-red when young.

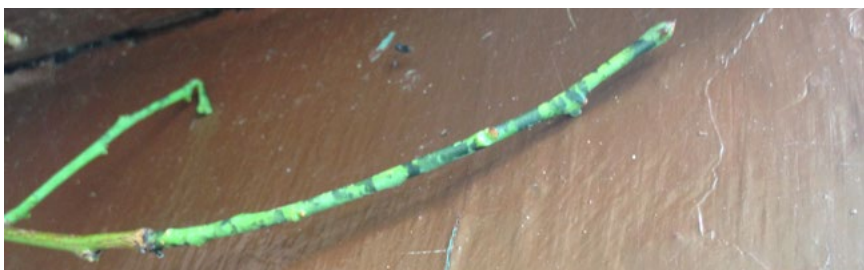
**Bark:** Thick, gray and deeply furrowed with broad scaly ridges; often tinged with red.

**Location/Other:** Piedmont and mountains; west edge of coastal plain; moist hillsides, ridges and gentle mountain slopes; shade tolerant; tree often has poor form.

**Use:** Flowers yield quality honey mainly in the mountainous areas; otherwise has little commercial value.









# SOUTHERN CRABAPPLE

## MALUS ANGUSTIFOLIA

**Height:** 20-30'

### Characteristics

**Leaf:** Alternate leaf arrangement; Leaves are 1 to 3 inches long and 1/2 of an inch to 2 inches wide; elliptic to ovate, doubly serrate, and acute or rounded; base is wedge-shaped; bright green and smooth on the top side of the leaf; paler and pubescent on the underside; petiole is short and pubescent.

**Fruit:** Subglobose pome that is 1 inch in diameter, pale yellow-green and usually broader than long; has a sour flesh; matures in the fall and remains on the shoots until the spring.

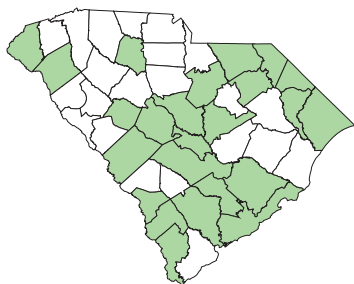
**Flower:** Has five petals that are pink and fragrant; 1 inch in diameter in umbel-like racemes; flowers bloom before or with the leaves in the spring.

**Twig:** Long shoots are slender and brown; short shoots are thorny spurs.

**Bark:** Thin, scaly and red-brown; divided by deep longitudinal fissures.

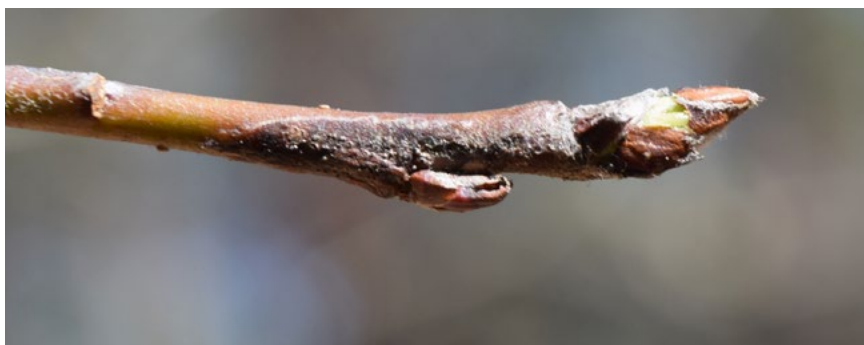
**Location/Other:** Statewide; if juniperus trees are nearby, it is susceptible to cedar-apple rust.

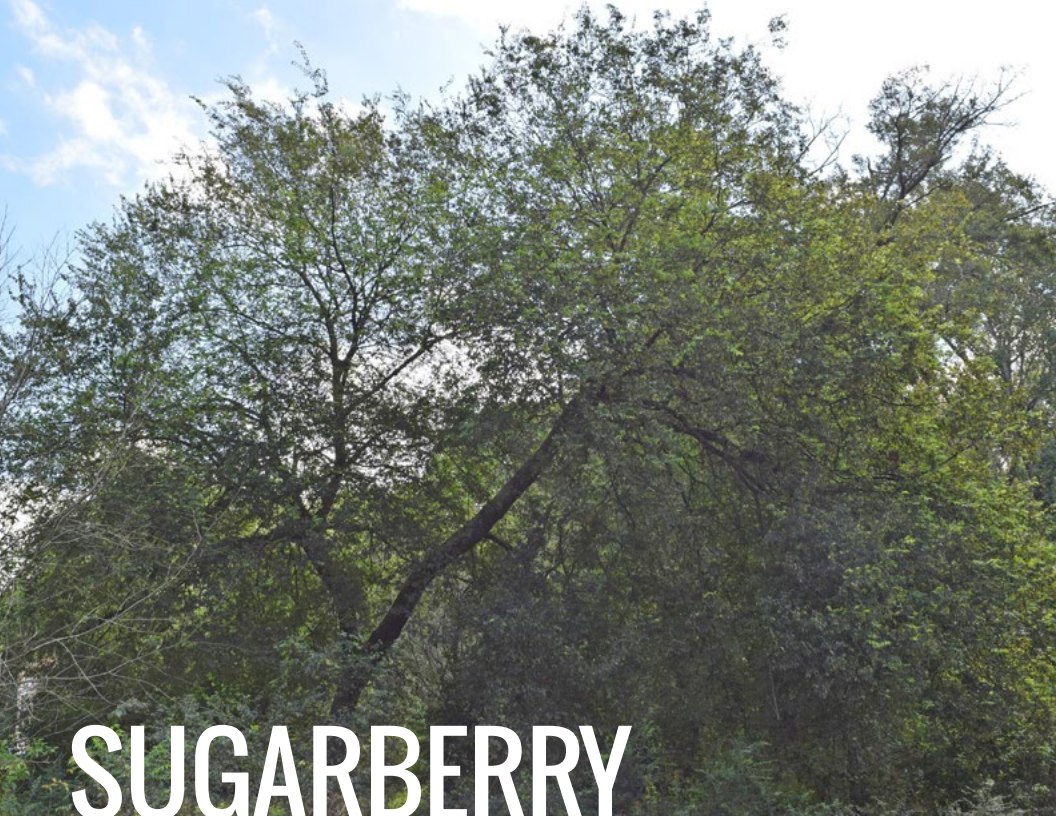
**Use:** Widely planted for wildlife or ornamental use; fruit is used in cider, jellies and preserves.





## TOOTHED SIMPLE LEAF





# SUGARBERRY

## CELTIS LAEVIGATA

**Height:** 60-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are broadly lance-shaped, 2.5 to 5 inches long and 1 to 1.5 inches wide; usually have smooth margins and a lopsided base that is often curved; has three distinct veins from the base of the leaf; short petiole; stipulate on petiole.

**Fruit:** Globular, orange-red and 1/4 of an inch in diameter on a slender stalk that is usually less than 1/3 of an inch long; berries often remain on the tree most of the winter.

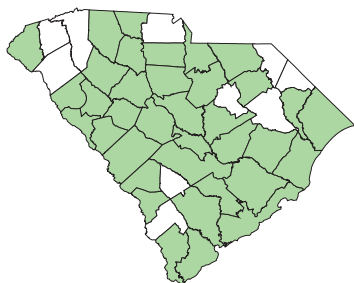
**Flower:** Greenish and 1/8 of an inch wide; appear at base of leaves in spring.

**Twig:** Reddish brown, terete and zigzag; small buds.

**Bark:** Pale gray covered with corky warts as it matures.

**Location/Other:** Statewide; mainly rich, moist flood plain soils but will grow in a variety of soils; shade tolerant; rapid growth; short-lived.

**Use:** Minor commercial value; used for fence posts and cheap furniture; planted as an ornamental tree.





## TOOTHED SIMPLE LEAF



# SWAMP CHESTNUT OAK

## QUERCUS MICHAUXII

**Height:** 60-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 5 to 8 inches long, 3 to 4 inches wide and oval to elliptical with a wavy margin because of large, rounded teeth; shiny dark green above; underside is coated with thick, silvery-white fuzz.

**Fruit:** Acorns are 1 to 1.5 inches long and oblong; lower 1/3 is covered by a bowl-like cup with coarse wedge-shaped scales; mature in one year.

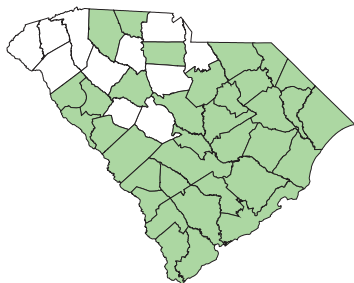
**Flower:** Monoecious and has no petals; males in catkins; females in spikes; appear in spring with leaves.

**Twig:** Stout, glabrous and angular; gray to red-brown; buds cluster at end of twig.

**Bark:** Ashy-gray and tinged with red; irregularly furrowed or scaly; fresh cut bark shows reddish-brown color; similar to white oak.

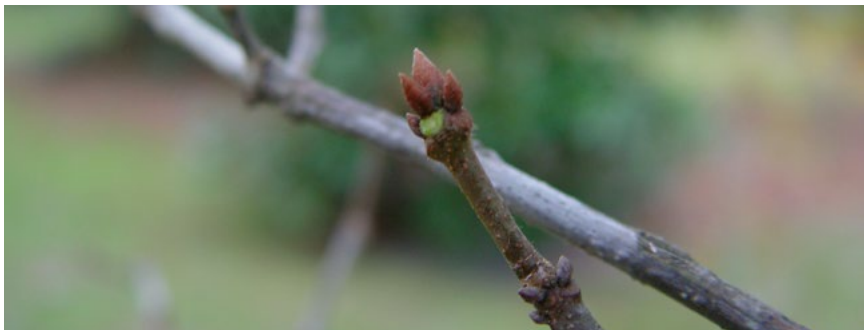
**Location/Other:** Coastal plain; moist or wet loamy soils, which may flood in fall or winter; moderately shade intolerant.

**Use:** Similar commercial value as white oak; used in construction, flooring, and implements.





## TOOTHED SIMPLE LEAF





# SWAMP COTTONWOOD

## POPULUS HETEROPHYLLA

**Height:** 90'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are ovate and rounded to a heart-shaped base; has largest leaves of any cottonwood; 4 to 7 inches long and 3 to 6 inches wide; small in-curved marginal teeth; dark green on the top and paler on the bottom with a yellow midrib; petiole is long and round; petiole is flat on the eastern cottonwood.

**Fruit:** Ovoid capsule with two or three valves.

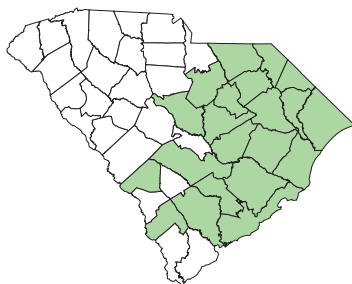
**Flower:** Dioecious; male catkins is 1.5 to 2.5 inches long; female catkins is 3 to 5 inches long.

**Twig:** Stout and brownish gray; star-shaped orange pith.

**Bark:** Reddish-brown, forming deep fissures, and is somewhat scaly.

**Location/Other:** Coastal plain; shallow swamps, sloughs and wet river bottoms; intolerant to shade; one of the fastest growing trees in the Southeast.

**Use:** Weak wood; used for pulp, veneer and containers.





## TOOTHED SIMPLE LEAF





# WATER TUPELO

## NYSSA AQUATICA

**Height:** 100'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 5 to 7 inches long and 2 to 4 inches wide; larger than blackgum and not tapered as much; occasionally toothed.

**Fruit:** Oblong, on a slender stalk, 1 inch long and dark reddish-purple; pit is prominently ribbed; readily floats on water.

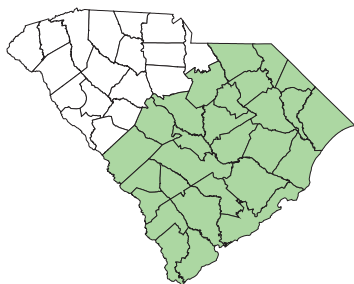
**Flower:** Dioecious or polygamous; male flowers are greenish and in dense heads on a pubescent stalk; female flowers are solitary on a short, pubescent stalk.

**Twig:** Stout and glabrous; red-brown; buds are small; heart-shaped leaf scars; has a diaphragmed pith.

**Bark:** Brownish gray with scaly ridges; Butt is usually conspicuously swollen.

**Location/Other:** Coastal plain; inundated swamps; intolerant to shade.

**Use:** Flowers yield honey; wood is used for pulp, veneer, boxes and crates; bowls are carved out of the lower trunk; also a substitute for corks for fishing net floats.





## TOOTHED SIMPLE LEAF





# WAX MYRTLE

## MYRICA CERIFERA

**Height:** 30'

### Characteristics

**Leaf:** Evergreen; alternate leaf arrangement; Oblanceolate, 1.5 to 4 inches long and 0.3 to 0.5 of an inch wide; leaves are aromatic when crushed; leaves have coarse saw-toothed edges; spotted beneath with small orange-yellow glands.

**Fruit:** Drupe; light green, clustered together and covered with thick blue or gray wax.

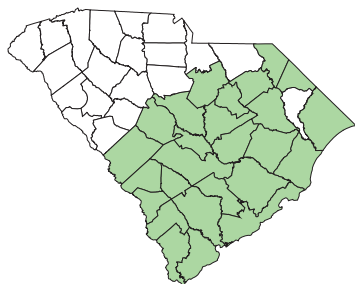
**Flower:** Dioecious; male catkins are 1/2 of an inch to 1 inch long and yellow-brown; female catkins are greenish and 1/2 of an inch long.

**Twig:** Slender, pubescent and reddish.

**Bark:** Thin and gray-brown.

**Location/Other:** Grows in many different soil types; grows well on moist, sandy soil and in upland hardwood forests; has the ability to fix nitrogen through small root nodules; one of the few Puerto Rican trees native in the United States; Myrtle Beach got its name from all of the wax myrtles that grew in the area.

**Use:** Ornamental used for landscaping and hedge screens; source of honey.









# WHITE BASSWOOD

## TILIA HETEROPHYLLA

**Height:** 80-100'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 5 to 6 inches long and 3 to 4 inches wide; shaped like a lopsided heart, and margins are toothed with silvery pubescent to white hairs below.

**Fruit:** Nut-like drupe that is attached to a leafy bract; covered with rusty-brown hairs.

**Flower:** Perfect; yellowish-white; in 10 to 20 long-stalked flowered clusters that are hanging from a leafy bract; five petals.

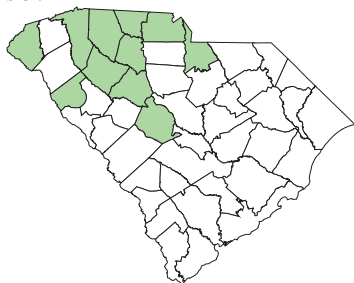
**Twig:** Green to red and zigzag; does not have a terminal bud, and lateral buds are red, large and lopsided.

**Bark:** Smooth and gray-green on young trees; Becomes dark gray and furrowed with narrow,

scaly ridges on older trees.

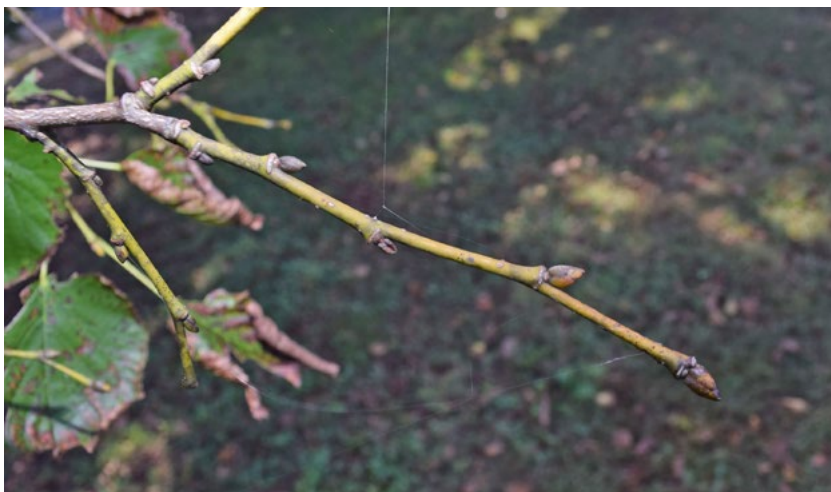
**Location/Other:** Mountains and upper Piedmont; deep, moist soil of lower slopes and coves; shade tolerant; Another species of basswood, Carolina basswood (*tilia caroliniana*), can be found along the coast of South Carolina in swamps.

**Use:** Minor commercial value; used for interior work, picture frames, veneer, trunks and excelsior.





## TOOTHED SIMPLE LEAF





# WINGED ELM

## ULMUS ALATA

**Height:** 40-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; smaller leaves than other elms; 1.5 to 3.5 inches long, 1 to 1.5 inches wide, doubly toothed and oblong with a base that is wedge-shaped or unequally rounded; parallel veins to leaf margin; very short petiole.

**Fruit:** Samara that is 1/3 of an inch long, flat and hairy on the margin; deeply notched at apex; ripens before or when the leaves appear.

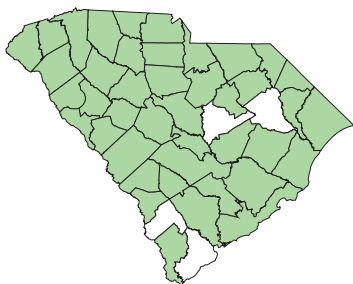
**Flower:** Reddish and in short, pendulous racemes; open prior to leaves appearing.

**Twigs:** Gray-brown; usually have two corky ridges or wings, especially on younger trees.

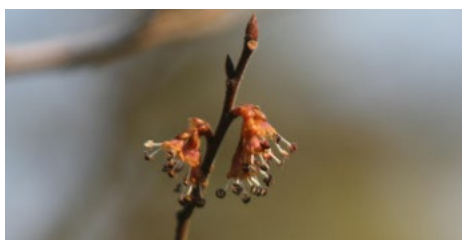
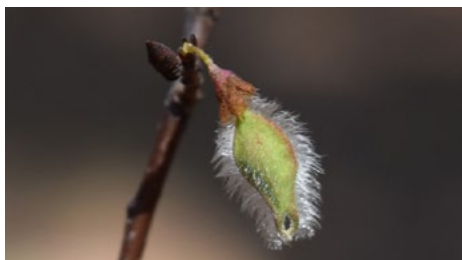
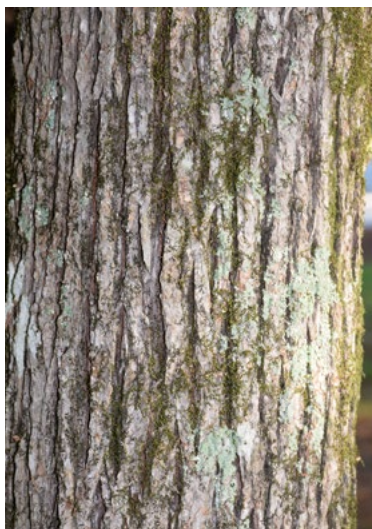
**Bark:** Reddish-brown and has flat-topped vertical ridges.

**Location/Other:** Statewide except for the southern tip of the state; various sites but usually on dry, gravelly soils; intolerant to shade; moderately susceptible to Dutch elm disease.

**Use:** Valued as an ornamental; minor commercial importance; used for furniture, boxes, pulp and crates.







# AMERICAN SYCAMORE

## PLATANUS OCCIDENTALIS

**Height:** 100-140'

### Characteristics

**Leaf:** Alternate leaf arrangement; 4 to 8 inches in diameter; leaves are broadly oval with three to five lobes; margins have large teeth; petiole is 3 to 5 inches long; petiole base is swollen and covers next year's buds.

**Fruit:** Globose and multiple of achenes; appear on a long, slender stem; 1 to 1.5 inches in diameter and tomentose; seeds are small and winged.

**Flower:** Monoecious; male and female are reddish and appear in dense clusters.

**Twig:** Moderately stout, zigzag and orange-brown or gray; leaf scars encircle winter buds.

**Bark:** Thin, mottled and creamy white to

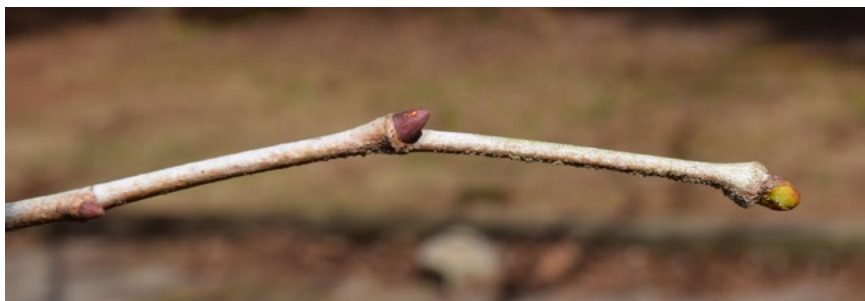
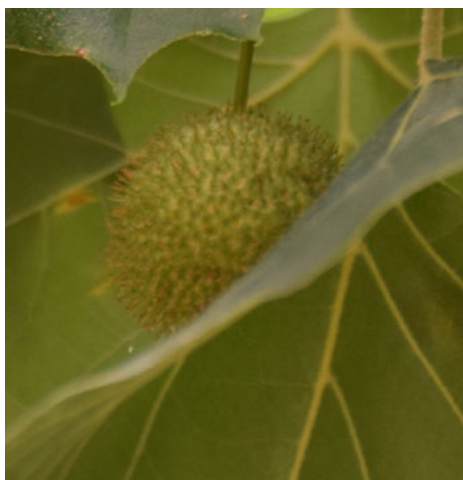
patches of brown and white-green; tends to be brown and furrowed at the base of the tree.

**Location/Other:** Statewide; moist, rich soil on margins of streams, lakes and rich bottomland; intolerant to shade; heavily influenced by anthracnose.

**Use:** Common ornamental in parks and roadsides; used for boxes, crates, furniture, butcher blocks, flooring and pulpwood.







# BLACK OAK

## QUERCUS VELUTINA

**Height:** 125-150'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 5 to 7 inches long and 3 to 5 inches wide; generally elliptical with five to seven narrow-toothed and bristle-tipped lobes; yellow-green to coppery and hairy on the underside when young; slick on both sides as the leaf matures; petiole is 3 to 5 inches long.

**Fruit:** Acorns are ovoid, 1/2 to 3/4 of an inch long and in a deep bowl-like scaly cup; mature in two years.

**Flower:** Monoecious; male is a pendulous catkin; female appears in short spikes.

**Twig:** Stout, smooth and gray-brown; terminal buds are typically 1/2 of an inch long, acute, angular and gray.

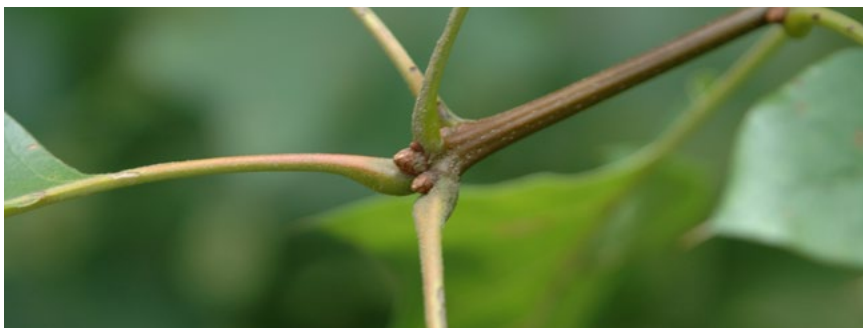
**Bark:** Dark brown to black; inner bark is yellow-orange in color.

**Location/Other:** Nearly statewide; may not be near coast; varies from dry slopes and ridges to rich, moist soil of upland sites; intermediate shade tolerance.

**Use:** Cut and marketed the same as red oak lumber.









# BLACKJACK OAK

## QUERCUS MARILANDICA

**Height:** 20-30'; rarely to 50'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 5 to 7 inches long, 2 to 3 inches wide, kite-shaped and shallowly, three-lobed at the apex; leathery with a brown, very hairy undersurface; petiole is stout and 1/2 of inch long.

**Fruit:** Acorns are usually stalked and light brown in a cup shaped like a goblet and covered with loose, rusty red scales; mature in two years.

**Flower:** Monoecious; male is a pendulous catkin; female appears in short spikes.

**Twig:** Stout, smooth and gray to red-brown; long, sharp pointed terminal bud that is reddish-brown.

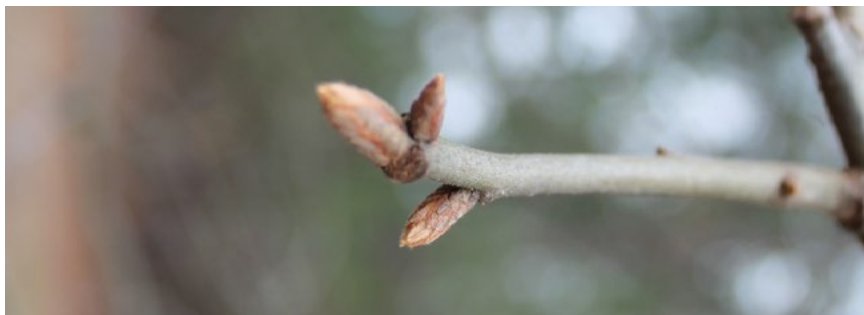
**Bark:** Dark brown to black, rough and broken into square, scaly plates; inner bark is orange.

**Location/Other:** Statewide; dry, sterile soil; often associated with longleaf pine sites; indicator of poor sites; intolerant to shade.

**Use:** Minimal landscaping and commercial value; used for firewood and charcoal.









# CHERRYBARK OAK

## QUERCUS PAGODA

**Height:** 100-120'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 5 to 9 inches long and 4 to 5 inches wide with five to 11 lobes; top of lobes tend to be more nearly at a right angle to midrib than the Southern red oak; broad wedge-shaped base; underside of leaf is hairy.

**Fruit:** Acorns are one-half inch long and enclosed in a thin, shallow cup; mature in two years.

**Flower:** Monoecious; male is a pendulous catkin; female appears in short spikes.

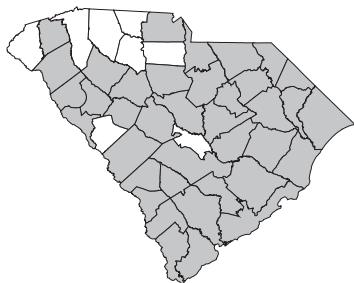
**Twig:** Stout, angular, red-brown and hairy at apex.

**Bark:** Gray-black, flaky or scaly, and

resembles somewhat the bark of black cherry.

**Location/Other:** Coastal plain; occupies different habitat than southern red oak; bottomland sites; does best on loamy ridge or rich, well-drained old fields; intolerant to shade.

**Use:** Valuable commercial timber tree; used for furniture, veneer, flooring, construction and charcoal.





## LOBED SIMPLE LEAF





# CHESTNUT OAK

## QUERCUS PRINUS

**Height:** 50-70'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 4 to 8 inches long and 3 to 4 inches wide; generally elliptical; margin appears wavy because of large rounded teeth; pubescent beneath; petiole is short and stout.

**Fruit:** Acorns are 1 to 1.5 inches long and lustrous brown; a very thin-walled cup encloses about 1/3 of the acorn; borne on a short stalk; mature in one year.

**Flower:** Monoecious; male is a pendulous catkin; female appears in short spikes.

**Twig:** Stout, orange to brown and smooth with multiple terminal buds.

**Bark:** Dark brown to gray-brown; has broad,

rounded ridges; deeply furrowed.

**Location/Other:** Upper Piedmont and mountains; dry, sterile soil and rocky ridges; intermediate in shade tolerance; slow growing;

**Use:** Acorns are an important food for many wildlife species; used for railroad ties and posts.









# CHINKAPIN OAK

## QUERCUS MUEHLENBERGII

**Height:** 40-50'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 4 to 7 inches long and 1 to 4 inches wide; generally oblong and wedge-shaped at the base; margin has coarse, bluntly pointed teeth; petiole is slender and 1 1/4 inches long.

**Fruit:** Acorns are brown to black, not stalked and the lower half is in a bowl-shaped scaly cup; mature in one year.

**Flower:** Monoecious; male is a pendulous, yellow-green catkin; female appears in short spikes.

**Twig:** Slender and reddish-brown; buds are pointed, smooth and chestnut brown.

**Bark:** Ashy-gray, rough and flaky; similar to

white oak and swamp chestnut oak.

**Location/Other:** Piedmont; usually on dry, rocky soils; intolerant to shade.

**Use:** Commercially valued though uncommon.





## LOBED SIMPLE LEAF





# FLORIDA MAPLE

## ACER BARBATUM

**Height:** 40-60'

### Characteristics

**Leaf:** Opposite leaf arrangement; 1.5 to 3 inches long and wide with three to five lobes; wavy margins and rounded; blue-green in color; leaves are usually hairy on the underside.

**Fruit:** Winged double samara; light brown; up to 1 inch long; mature in the fall.

**Flower:** In drooping corymbs; Bell-shaped with five lobes and yellow; 1/8 of an inch long; appear with leaves.

**Twig:** Slender and reddish-brown; opposite buds.

**Bark:** Thin and light gray with shallow furrows.

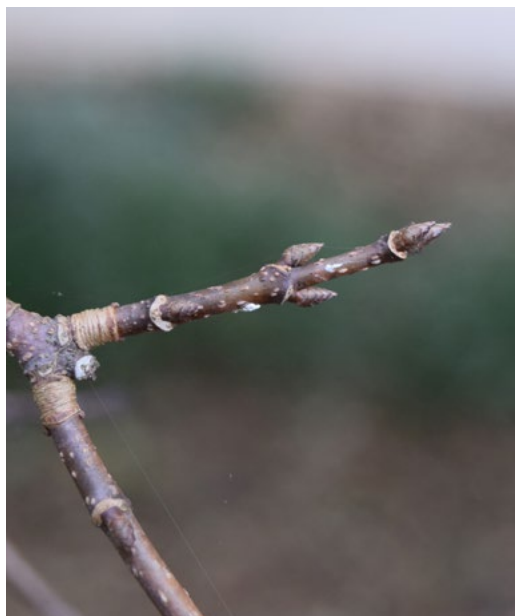
**Location/Other:** Coastal plain and lower Piedmont; moist soils along rivers and other low wet areas; shade tolerant.

**Use:** Attractive ornamental; Used for furniture, interior finishing and veneer.





## LOBED SIMPLE LEAF





# NORTHERN RED OAK

## QUERCUS RUBRA

**Height:** 80-100'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 5 to 8 inches long and 4 to 5 inches wide; generally elliptical with seven to 11 lobes; tips of lobes tend to point upward and feel leathery with a tuft of hair between lateral veins and midrib; petiole is 1 to 2 inches long and generally 10 percent of the total leaf length.

**Fruit:** Acorns are 3/4 to 1 inch long, 3/4 of an inch in diameter and in a flat saucer-like cup; mature in two years.

**Flower:** Monoecious; males are yellow-green pendulous catkins; females are in spikes.

**Twig:** Stout, red-brown and smooth; buds are pointed with chestnut-brown scales

**Bark:** Dark brown to black with long gray streaks on ridges, especially in the upper stem.

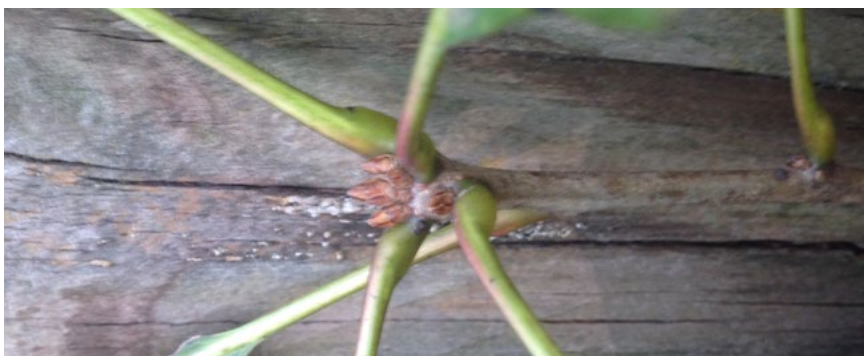
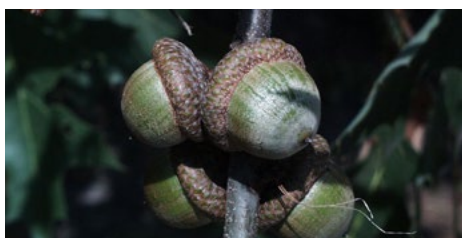
**Location/Other:** Piedmont and mountains; clay to loamy soils and from deep to shallow rocky soils; fairly shade tolerant; most widely planted American oak in Europe.

**Use:** Valuable landscape species; one of the highest quality red oaks; used for flooring, furniture and veneer.





## LOBED SIMPLE LEAF





# OVERCUP OAK

## QUERCUS LYRATA

**Height:** 60-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; 6 to 10 inches long and 1 to 4 inches wide; five to nine lobes that form a near cross-like appearance; similar to post oak, but big difference is they are not scabrous; below the middle lobes the sinuses come together almost reaching the midrib.

**Fruit:** Acorns are globular in shape, slightly flattened and almost completely enclosed in a deep, thin cup; mature in one year.

**Flower:** Monoecious; Males are pendulous yellow catkins; females are reddish single spikes.

**Twig:** Moderately stout, gray-brown and smooth.

**Bark:** Brownish-gray and rough with irregular

plates or ridges; tree often has crooked or twisted branches, and tree hole may be twisted.

**Location/Other:** Coastal plain and lower Piedmont; bottomlands, usually on poorly drained clay soils subject to prolonged flooding; intermediate shade tolerance.

**Use:** Strong and durable; similar use to white oak; popular landscape tree in the Southeast because of tolerance to harsh conditions.







# POST OAK

## QUERCUS STELLATA

**Height:** 60-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves appear cross-like, are 4 to 6 inches long and 3 to 4 inches wide; leaves are shiny dark-green and are slightly rough and scabrous above and gray-green beneath with star-shaped hairs; middle lobes are opposite and resemble a Maltese Cross.

**Fruit:** Acorns are one-half inch to 2/3 of an inch long and sit in a cup without warty scales; mature in one year.

**Flower:** Monoecious; males are pendulous yellow-green catkins; females are reddish and appear in short spikes.

**Twig:** Moderately stout, yellowish-gray and tomentose; buds are more rounded.

**Bark:** Gray and similar to white oak with more definite longitudinal ridges.

**Location/Other:** Statewide; dry, granular soils and rocky ridges; intolerant to shade; branches and upper limbs are often twisted and gnarled

**Use:** Similar uses to white oak; used for fence posts, railroad ties and general construction.









# RED MAPLE

## ACER RUBRUM

**Height:** 70-90'

### Characteristics

**Leaf:** Opposite leaf arrangement; leaves are 2 to 6 inches in diameter; three- to five-lobed; coarsely toothed margin; petiole is red and slender; turn brilliant, scarlet, orange or bright yellow in the autumn.

**Fruit:** Paired samaras; reddish turning light brown.

**Flower:** Polygamous; red-yellowish and occur in hanging clusters; appear before leaves in late February or early March.

**Twig:** Slender and shiny red with small lenticels; leaf scars are V-shaped.

**Bark:** Smooth and light gray when young; becomes darker, scaly and furrowed as the

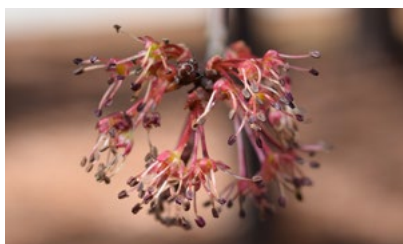
tree matures.

**Location/Other:** Statewide; from swamp and bottomland to dry uplands; shade tolerant; most common maple in South Carolina.

**Use:** Minor commercial value; popular ornamental tree.









# SASSAFRAS

## SASSAFRAS ALBIDUM

**Height:** 30-50'

### Characteristics

**Leaf:** Alternate leaf arrangement; 4 to 6 inches long and 2 to 4 inches wide; simple; trimorphic; may be unlobed, two-lobed (shaped like a mitten) or three-lobed; all three shapes can be present or possibly only one; dark green above and glaucous beneath; aromatic; yellow or red in the fall; one of the first trees to turn.

**Fruit:** Subglobose and shiny blue drupe.

**Flower:** Dioecious; yellow-green and appear in racemes.

**Twig:** Twigs are green to yellow-green and aromatic.

**Bark:** Thick, red-brown to cinnamon-red and divided by deep fissures into broad, flat ridges;

deeply furrowed on older trunks; inner bark is aromatic.

**Location/Other:** Statewide; dry, sandy soil common along fence rows and in abandoned fields and woods openings; intolerant to shade.

**Use:** Wood is durable and rot resistant; used for fence posts and furniture; oil is used in soaps; filé powder is made from sassafras leaves and used in Louisiana cuisine.





## LOBED SIMPLE LEAF





# SCARLET OAK

## QUERCUS COCCINEA

**Height:** 50-75'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 4 to 7 inches long, 3 to 5 inches wide and oval shaped with five to nine lobes; leaf sinuses form compressed “C” that extends nearly to midrib; open ends of “C” tend to close; petiole is slender and 2 to 4 inches long; often 50 percent of the total leaf length.

**Fruit:** Acorns are 1/2 to 1 inch long with a deep bowl-like scaly cup; apex of the acorn often has concentric rings; mature in two years.

**Flower:** Monoecious; males are pendulous yellow-green catkins; females are short spikes.

**Twig:** Stout, red-brown and smooth with multiple terminal buds.

**Bark:** Dark brown, thick and rough at the base; thin with shallow ridges above; reddish inner bark.

**Location/Other:** Piedmont and mountains; dry, light, sandy soils; very intolerant to shade; gets its name from its brilliant fall coloration; trunk often has persistent dead limb stubs.

**Use:** Similar to other red oak species; fine ornamental tree because of its brilliant fall color.





## LOBED SIMPLE LEAF





# SILVER MAPLE

## ACER SACCHARINUM

**Height:** 80-100'

### Characteristics

**Leaf:** Opposite leaf arrangement; leaves are 6 to 7 inches in diameter; five deeply separated lobes; terminal lobe is constricted at base; leaf margin is double toothed; bright green on top and silvery white and glaucous on the underside; petiole is long and slender.

**Fruit:** Paired samaras; light tan.

**Flower:** Polygamous; greenish-yellow and appear in dense clusters before leaves.

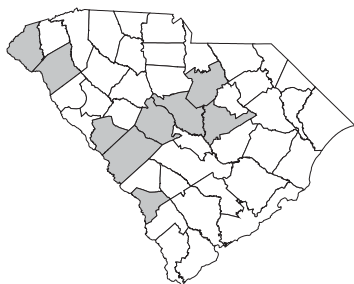
**Twig:** Slender, smooth and dull red; buds are reddish-brown; unpleasant odor when twigs are crushed.

**Bark:** Thin, smooth and light gray when young becoming shaggy with long narrow

scales when older.

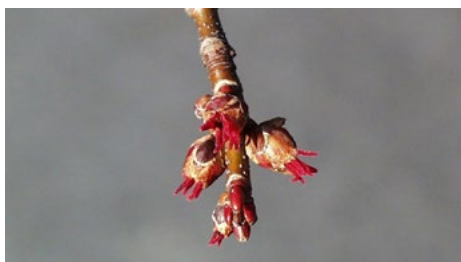
**Location/Other:** Piedmont and mountains; moist, well drained soils; also on peat and muck soils; along the floodplains of red rivers within coastal plain; low to moderate shade tolerant; fastest growing maple tree.

**Use:** Popular ornamental; becomes a liability with age; used for pulp; can produce a low-grade syrup.





## LOBED SIMPLE LEAF





# SOUTHERN RED OAK

## QUERCUS FALCATA

**Height:** 80-100'

### Characteristics

**Leaf:** Alternate leaf arrangement; 5 to 9 inches long and 4 to 5 inches wide with three to seven deep lobes; terminal lobe much longer and falcate; bristle tips are on the end of each lobe; bell-shaped base; Dark green and lustrous above; grayish-green and tomentose below.

**Fruit:** Acorns are 1/2 of an inch long and enclosed at the base by a scaly cup.

**Flower:** Monoecious; Males are pendulous catkins; females appear in spikes.

**Twig:** Stout and reddish brown; tawny tomentose at apex; terminal buds are reddish-brown, ovoid, pointed and pubescent.

**Bark:** Thick and dark gray; deeply furrowed with broad scaly ridges; light-colored patches

on upper bole.

**Location/Other:** Statewide; usually on upland, dry, infertile soils; intermediate to intolerant to shade; sometimes confused with cherrybark oak because of hairs on underside of leaf, but cherrybark oak grows in moist areas and its leaves have a wedge-shaped base.

**Use:** Marketed as red oak for general construction, flooring and furniture.





## LOBED SIMPLE LEAF





# SWEETGUM

## LIQUIDAMBAR STYRACIFLUA

**Height:** 80-120'

### Characteristics

**Leaf:** Alternate leaf arrangement; 5 to 7 inches in diameter; leaves are star-shaped with five to seven long-pointed, finely saw-toothed lobes; fall color varies from dull to brilliant red.

**Fruit:** Round spiked ball and may remain on tree during winter.

**Flower:** Monoecious; greenish; males and appear in terminal racemes that are 2 to 3 inches long; females appear on a slender stalk.

**Twig:** Often winged with corky ridges and a star-shaped pith; Three bundle scars on leaf scar.

**Bark:** Thick, gray-brown and sometimes has corky ridges when young; deeply furrowed

with narrow, rounded ridges when mature.

**Location/Other:** Statewide; moist, rich, alluvial soils, but tolerant to a wide variety of soils and sites; shade intolerant; most common occurring hardwood species in South Carolina; heartwood is dark red to red-brown, hence the common name redgum.

**Use:** Some commercial value; used for plywood and furniture.





## LOBED SIMPLE LEAF





# TURKEY OAK

## QUERCUS LAEVIS

**Height:** 20-40'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 3 to 10 inches and 1 to 6 inches wide with three to seven curved and often toothed lobes; base of the leaf is pointed; dark green and lustrous above; yellow-green and glabrous below; petiole is short and stout.

**Fruit:** Acorns are 1 inch long; usually solitary, stalked and in a thin bowl-shaped cup with orange fringe inside; mature in two years.

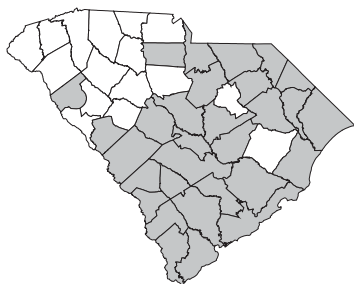
**Flower:** Monoecious; Males are pendulous catkins; females appear in spikes.

**Twig:** Stout, red-brown and glabrous; terminal buds are large, red-brown and sharply pointed.

**Bark:** Gray to black, deeply furrowed, scaly and ridged; inner bark is red.

**Location/Other:** Sandhills mainly; also sandy ridge of the coastal plain; dry, sandy, sterile soils; intolerant to shade; most common oak in the Carolina sandhills; has crooked branches, an open crown and is often a shrub.

**Use:** Primarily as fuel; food and cover for wildlife.







# WATER OAK

## QUERCUS NIGRA

**Height:** 50-100'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 2 to 4 inches long and 1 to 2 inches wide; spatulate to obovate; margin is variable from entire to three-lobed at apex and often remains on the tree until late winter; dark green above and paler below; petiole is short and stout.

**Fruit:** Acorns are 1/2 an inch long, black and in a thin saucer-like cup; mature in two years.

**Flower:** Monoecious; males are pendulous catkins that are 2 to 3 inches long; females appear in spikes.

**Twig:** Red-brown and smooth; buds are short, ovoid and sharply pointed.

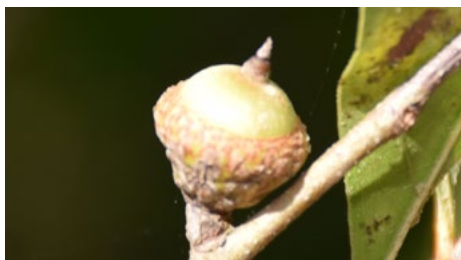
**Bark:** Smooth and brown on young trees; becomes dark gray to black with broad low ridges in older trees.

**Location/Other:** Coastal plain and lower Piedmont; bottomland mostly but found in moist upland and planted on a variety of sites; intolerant to shade.

**Use:** Minor commercial value; used for rough lumber; common ornamental.







# WHITE OAK

## QUERCUS ALBA

**Height:** 80-100'

### Characteristics

**Leaf:** Alternate leaf arrangement; simple; 5 to 9 inches long and 2 to 4 inches wide with seven to nine finger-like lobes; rounded sinuses reach nearly to the midrib; bright green and glabrous above; paler below; base is wedge-shaped; petiole is short and stout; leaves turn a wine-red color in the fall and then fade to various shades of brown.

**Fruit:** Acorn is 3/4 of an inch long; the cap has warty scales; mature in one year.

**Flower:** Monoecious; males are pendulous yellow-green catkins; females appear in spikes.

**Twig:** Smooth, moderately stout and gray to reddish; has a star-shaped pith; terminal buds are small and rounded.

**Bark:** Ashy-gray and scaly on young trees; becomes irregularly plated and ridged on older trees.

**Location/Other:** Statewide; on a variety of soils; best on moist, rich and well-drained soils; moderately shade tolerant.

**Use:** Most valuable timber species of the white oaks; used for furniture, barrel making, veneer, flooring; wildlife species.





## LOBED SIMPLE LEAF





# YELLOW-POPLAR

## LIRIODENDRON TULIPIFERA

**Height:** 80-150'

### Characteristics

**Leaf:** Alternate leaf arrangement; 4 to 6 inches in diameter; leaves are four-lobed with a tulip-like outline; one of the few leaves without a central lobe; dark green and glabrous above; paler below; petiole is long and slender.

**Fruit:** Upright cone-like aggregate of samaras; yellow-green; 2.5 to 3 inches long; remains on tree after leaves have fallen.

**Flower:** Tulip-like; yellow-orange-green in color; solitary and upright; appears in May.

**Twig:** Stout and red-brown; terminal buds are 1/2 of an inch long and resemble a duck bill; diaphragmed pith.

**Bark:** Gray with white patches on young

trees; becomes ashy-gray, deeply furrowed and interlaced on mature trees.

**Location/Other:** Statewide; moderately moist, well-drained, coarse textured soils; shade intolerant; heartwood is greenish-yellow.

**Use:** Important timber species; used for furniture, crates, toys, flooring, musical instruments and pulpwood; ornamental tree.









# BLACK LOCUST

## ROBINIA PSEUDOACACIA

**Height:** 40-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are 8 to 14 inches long and pinnately compound with seven to 19 leaflets; oval to oblong; bluish-green above and paler below; petiole is smooth and swollen at base.

**Fruit:** Flat legume; dark brown; 2 to 4 inches long, 1/2 of an inch wide, and contains four to eight seeds.

**Flower:** Showy white; five petals; appear in hanging racemes that are 4 to 8 inches long.

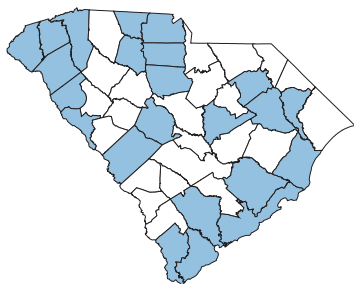
**Twig:** Stout, red-brown to grayish and somewhat zigzag; have stipular spines.

**Bark:** Reddish-brown to nearly black and deeply furrowed with rounded, interlacing,

fibrous scaly ridges.

**Location/Other:** Statewide but mostly in the Piedmont and mountains; wide variety of soils and sites, except swamps; intolerant shade.

**Use:** Very durable in regard to rot resistance; used for fence posts, poles and decking; planted for erosion control.









# BLACK WALNUT

## JUGLANS NIGRA

**Height:** 70-90'

### Characteristics

**Leaf:** Alternate leaf arrangement; pinnately compound leaves are 12 to 24 inches long with 15 to 23 tapered leaflets; terminal leaflet is often suppressed or missing; finely serrate; has a hairy rachis, and petiole is swollen.

**Fruit:** Globose, corrugated and surrounded by a yellow-green husk; nut is edible.

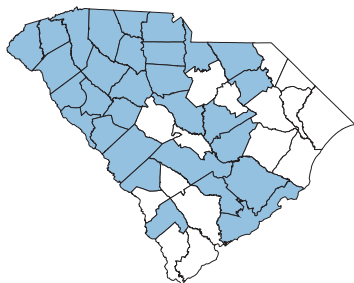
**Flower:** Monoecious; males are green catkins that are 2.5 to 5 inches long; females are yellow-green and appear in short terminal spikes.

**Twig:** Stout, brown to orange-brown and pubescent; buff-colored chambered pith.

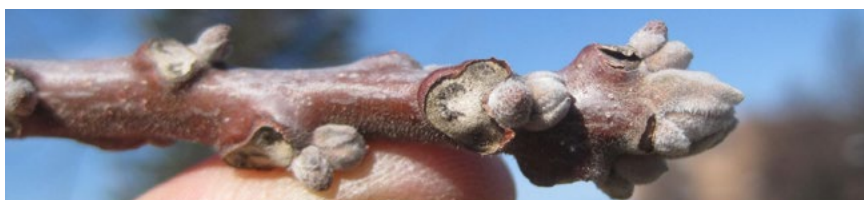
**Bark:** Gray-brown to black and is divided by deep, narrow furrows into thin ridges.

**Location/Other:** Piedmont and sandhills; deep, moist, fertile soils of bottomlands, gentle slopes and coves; intolerant to shade; leaves produce a toxic substance called juglone, which poisons surrounding plants and trees.

**Use:** One of the scarcest and highest valued native trees; used for furniture, gunstocks, veneer, paneling and interior finish.









# BOXELDER

## ACER NEGUNDO

**Height:** 30-60'

### Characteristics

**Leaf:** Opposite leaf arrangement; compound leaves with three to seven leaflets; leaflets are 2 to 4 inches long, 1.5 to 2.5 inches wide and coarsely toothed; dark green and glabrous above; paler below; long, reddish petiole.

**Fruit:** V-shaped paired samaras; reddish-brown and 1.5 to 2 inches long.

**Flower:** Dioecious; yellow-green; males appear in corymbs; females appear in hanging clusters.

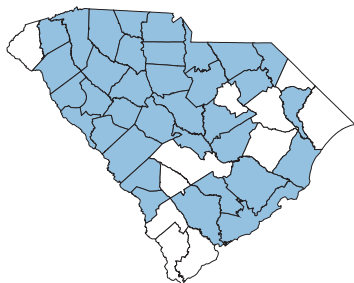
**Twig:** Moderately stout and green to purplish green; terminal buds are ovoid, bluish white and pubescent.

**Bark:** Gray-brown; it is slightly ridged on

young trees and becomes deeply furrowed on older trees.

**Location/Other:** Statewide; moist soils along streams, lakes, ponds, swamps and occasionally on dry sites; moderately shade tolerant; commonly mistaken for poison ivy; early successional species.

**Use:** Limited commercial value; used for pulp.









# GREEN ASH

## FRAXINUS PENNSYLVANICA

**Height:** 60-80'

### Characteristics

**Leaf:** Opposite leaf arrangement; compound leaves are 6 to 10 inches long with seven to nine leaflets; leaves are lanceolate and lustrous green.

**Fruit:** Fruit is a single-winged samara with one seed that is shaped like a lance or spear point.

**Flower:** Dioecious; males appear in tight panicles and are purplish red; females appear in loose panicles and are greenish red.

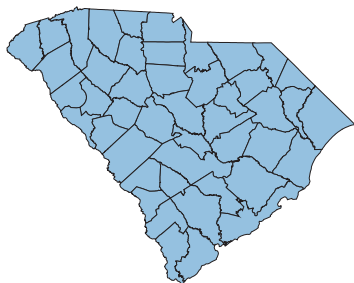
**Twig:** Stout and gray to gray-green; terminal bud is more pointed than one on a white ash; lateral bud sits on top of a leaf scar; while lateral bud of white ash sits in leaf scar.

**Bark:** Ashy-gray with deep diamond-shaped furrows and forking ridges; similar to white ash

but not so deeply furrowed.

**Location/Other:** Inland edge of coastal plain, Piedmont and mountains; stream banks and moist bottomlands; intolerant to shade.

**Use:** Formerly a valuable landscape tree but is currently being decimated by the emerald ash borer, which has been detected in South Carolina; used for furniture, handles, pulp and plywood.









# HONEYLOCUST

## GLEDITSIA TRIACANTHOS

**Height:** 80'

### Characteristics

**Leaf:** Alternate leaf arrangement; leaves are pinnately or bipinnately compound and 6 to 12 inches long with 15 to 30 leaflets on a short petiole; ovate to elliptical.

**Fruit:** Legume that is 12 to 18 inches long, 1 inch wide, reddish-brown; usually twisted and flattened.

**Flower:** Small with three to five petals; greenish white; appear in hanging clusters.

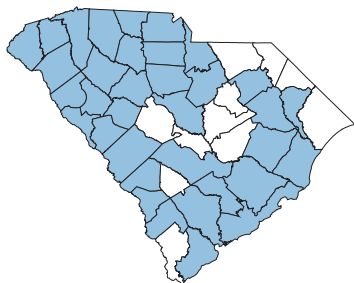
**Twig:** Moderately stout, green to red-brown conspicuously zigzag and are armed with two to three branched thorns.

**Bark:** Thin and dark gray; smooth on younger trees; broken into narrow flat plates

on older trees; usually contains two to three long, branched thorns.

**Location/Other:** Statewide but mostly in the upper Piedmont and mountains; rich bottomlands and mountain slopes, along water courses or on limestone soils; intolerant to shade.

**Use:** Wood is hard, heavy and strong; used for fence posts, ties and veneer.









# MOCKERNUT HICKORY

## CARYA TOMENTOSA

**Height:** 50-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; pinnately compound leaves are 8 to 12 inches long with seven to nine leaflets; obovate to oblanceolate and serrate; dark green above; paler below and densely hairy; rachis is stout and very hairy; crushed leaves have a strong fragrance.

**Fruit:** Nut that is four-ribbed and enclosed in a reddish-brown husk; splits to middle or base.

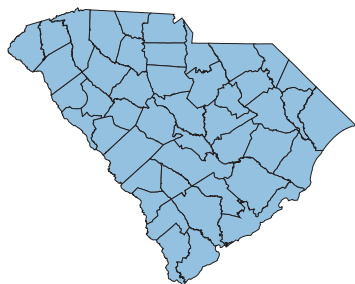
**Flower:** Monoecious; Males appear in green three-branched catkins; females appear in spikes in clusters of two to five.

**Twig:** Stout, reddish brown to grayish brown and tomentose; terminal bud is large, 1/2 to 3/4 of an inch long and hairy.

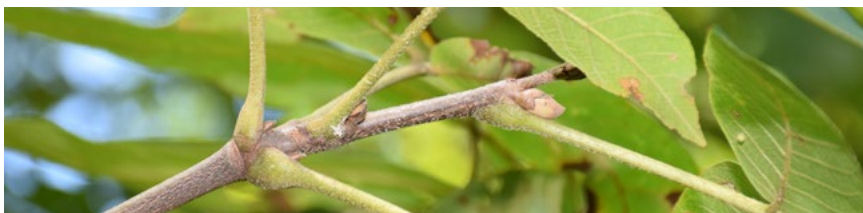
**Bark:** Thick and dark gray; shallow furrows and interlaced ridges that form diamond patterns.

**Location/Other:** Statewide; dry upland slopes; shade intolerant.

**Use:** Used for handles, furniture, flooring, fuel and charcoal.









# PECAN

## CARYA ILLINOINENSIS

**Height:** 100'

### Characteristics

**Leaf:** Alternate leaf arrangement; pinnately compound leaves are 12 to 20 inches long with 11 to 17 slightly sickle shaped leaflets; long pointed at the tip; finely saw-toothed; dark yellowish green above and paler below.

**Fruit:** Edible nut that is smooth; has a four-sectional dark brown husk that splits open when the fruit is ripe.

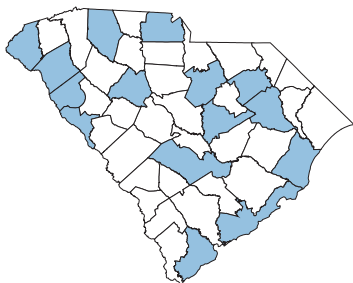
**Flower:** Monoecious; males are yellow-green and appear in three-branched catkins; females are yellow and appear in spikes that are slightly four-angled.

**Twig:** Moderately stout, reddish-brown and slightly pubescent.

**Bark:** Moderately thick and light brown or grayish brown; smooth when young; becomes moderately furrowed with scaly ridges.

**Location/Other:** Planted and naturalized statewide; moist well-drained loamy soils along river flood plains and valleys; shade intolerant; tallest of the hickories.

**Use:** Widely planted across the Southeast for nut production; used for flooring, veneer and charcoal.









# PIGNUT HICKORY

## CARYA GLABRA

**Height:** 60-80'

### Characteristics

**Leaf:** Alternate leaf arrangement; compound leaves are 4 to 6 inches long with five lance-shaped leaflets; largest leaflet is near the tip; yellow-green and smooth above; paler below; slender, smooth and shiny rachis; has a golden yellow fall color.

**Fruit:** A pear-shaped nut; husk splits only about halfway.

**Flower:** Monoecious; males are yellow-green three-branched catkins; females appear in spikes.

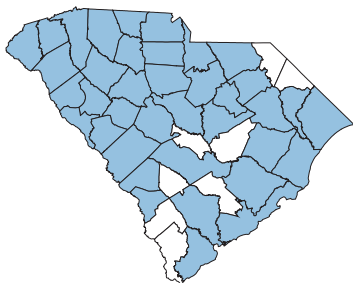
**Twig:** Slender to stout; smooth and dotted with lenticels.

**Bark:** Smooth when young; becomes

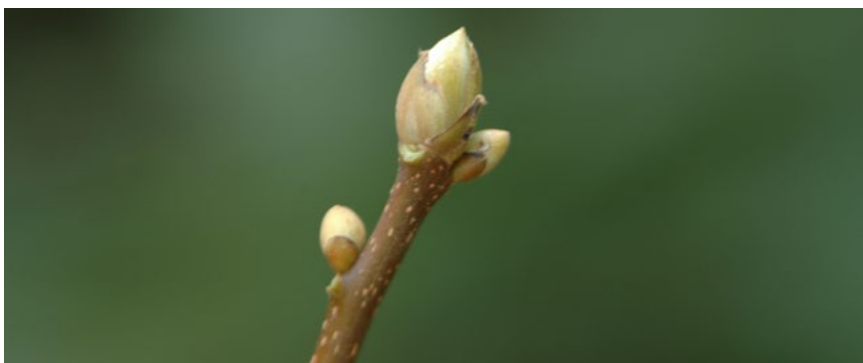
thick, dark gray and deeply furrowed with interlacing ridges as tree matures, forming a diamond pattern.

**Location/Other:** Statewide; dry ridges and hillsides with well-drained soils; occasionally found on moister sites; intermediate shade tolerance.

**Use:** Similar to other hickories; used for tool handles, fuel, furniture and charcoal.









# RED BUCKEYE

## AESCULUS PAVIA

**Height:** 20-30'

### Characteristics

**Leaf:** Opposite leaf arrangement; palmately compound; usually five, sometimes seven, leaflets; oblong-lanceolate; serrate; bright yellow-green above and paler below; petiole is long and stout.

**Fruit:** Leathery capsule; smooth and light brown; large seed similar in appearance to the chestnut but not edible.

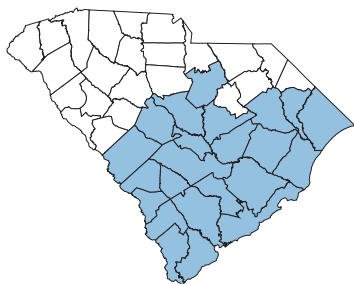
**Flower:** Polygamous; cluster of tubular flowers with petals that are rose to bright red.

**Twig:** Reddish-brown and stout; buds are often paired at end of twig.

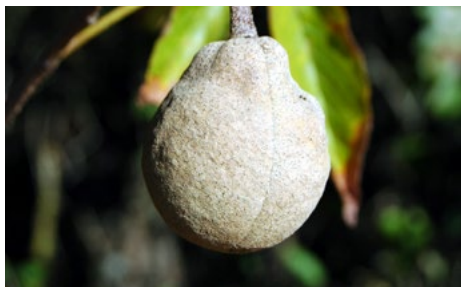
**Bark:** Thin, brown-gray and smooth.

**Location/Other:** Coastal plain; moist soils along river bluffs, streams, swamps and in flood plains; understory tree in the forest; shrub-like appearance.

**Use:** Ornamental value only.









# SHAGBARK HICKORY

## CARYA OVATA

**Height:** 70-100'

### Characteristics

**Leaf:** Alternate leaf arrangement; compound leaves are 8 to 14 inches long with five, rarely seven, oval finely-toothed leaflets; terminal leaf is the largest; 5 to 7 inches long; stout and mostly smooth rachis.

**Fruit:** Nut that is four-ribbed, nearly round and smooth; best edible nut.

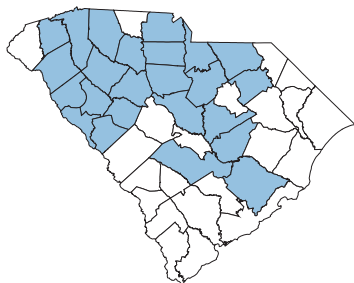
**Flower:** Monoecious; males are green three-branched catkins; females appear in spikes.

**Twig:** Stout, orange-brown and pubescent; terminal buds are long, egg-shaped and covered in thin scales.

**Bark:** Gray and smooth on young trees and distinctively shaggy on older trees.

**Location/Other:** Piedmont; on upland slopes and ridges; best on most alluvia soils; shade tolerant.

**Use:** Similar to other hickories; used for tool handles, furniture, flooring, fuel and charcoal.









# WHITE ASH

## FRAXINUS AMERICANA

**Height:** 80-100'

### Characteristics

**Leaf:** Opposite leaf arrangement; compound; 8 to 12 inches long with five to nine oblong leaflets with smooth or fine-toothed margins; upper surface is dark green and smooth; underside is light green to whitish; rachis is jointed at nodes.

**Fruit:** Paddle-shaped samara; light brown.

**Flower:** Dioecious; dark red; males appear in dense clusters; females appear in loose clusters.

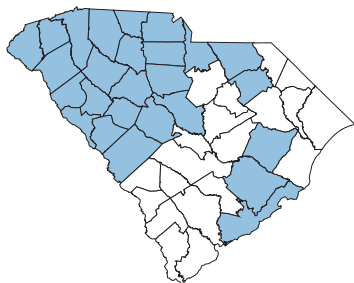
**Twig:** Stout and gray-green; terminal bud looks like a bishop's hat or pinched chocolate chip; lateral buds sit in the leaf scar.

**Bark:** Thick and ashy-gray; finely furrowed into close diamond-shaped areas separated by

narrow ridges that form net-like patterns.

**Location/Other:** Piedmont; lower slopes, coves, stream margins and bottomlands; relatively shade tolerant; more tolerant as a seedling and less tolerant as an older tree; decimated by the emerald ash borer.

**Use:** More commercial and ornamental value than green ash; used for baseball bats, furniture, veneer, handles, containers and fuel.







# GLOSSARY

- Achene** - a small, dry one-seeded fruit that is unwinged.
- Acute** - has an apex with straight sides that meet to form an angle of less than 90 degrees.
- Alternate** - leaves are arranged singly at intervals along twigs.
- Angiosperm** - a plant with seeds enclosed in an ovary.
- Apex** - the tip or terminal end.
- Aromatic** - has a distinctive smell when broken or crushed.
- Axil** - angle between the upper side of the leaf and the stem.
- Bole** - the stem of a tree.
- Bract** - a modified leaf, sometimes scale-like, associated with a flower or inflorescence.
- Capsule** - a simple dry fruit produced from a compound pistil.
- Catkin** - an elongated drooping cluster of single-sex flowers with scaly bracts, usually lacks petals.
- Deciduous** - leaves fall off seasonally.
- Dioecious** - male and female flowers are on separate trees.
- Drupe** - a simple fleshy fruit with a central stone-like core with one or more seeds.
- Elliptical** - resembling an ellipse in outline.
- Entire** - margin is smooth, lacking teeth or crenations.
- Epicormic** - a shoot emerging from a dormant bud on the main stem or branch of the tree.
- Evergreen** - green foliage is present throughout the year.
- Falcate** - sickle- or scythe-shaped.
- Fascicle** - in clusters or bundles, frequently associated with *Pinus*.
- Fissured** - deep vertical furrows.
- Furrowed** - channeled or grooved.
- Glabrous** - lacking hairs, smooth.
- Glaucous** - covered with a white waxy bloom or material that is readily removed.
- Globose** - spherical or round in shape.
- Gymnosperm** - bearing naked seeds.
- Lanceolate** - shaped like a lance, much longer than wide, pointed at the tip and broadest at the base.
- Legume** - one- to many-seeded dry pod-like fruit.
- Lenticel** - a corky spot on the bark functioning in gas exchange.
- Lustrous** - glossy, shiny.
- Margin** - the edge of the leaf.
- Midrib** - the central vein of a leaf.
- Monoecious** - having both sexes on the same plant.
- Node** - point on a twig where a leaf, flower or bud is attached.
- Oblanceolate** - inversely lanceolate.
- Obovate** - inversely ovate with the broadest end at the apex.
- Opposite** - two branches or leaves emerging at the same node, not alternating or whorled.
- Ovate** - egg-shaped with the broadest end at the base.
- Palmate** - radiating from a common point, fan-like.
- Panicle** - compound or branching raceme.
- Pendulous** - hanging, drooping or declined.
- Perfect** - flowers with both male and female reproductive organs.
- Persistent** - remaining attached whether dead or alive.
- Petiole** - stalk of a leaf.
- Pinnate** - compounded, as in leaves, along each side of an axis.
- Pith** - innermost or central part of a twig or stem.



**Pome** - a fleshy fruit with a papery walled inner chamber containing seeds, e.g., apple.

**Pubescent** - hairy.

**Raceme** - a simple indeterminate inflorescence.

**Samara** - a dry one-seeded fruit with a wing, e.g., maple.

**Scabrous** - rough textured.

**Serotinous** - having cones that remain closed long after the seeds have matured.

**Serrate** - saw-toothed with sharp teeth pointing forward.

**Simple** - singular, not compound.

**Sinus** - space between two lobes on a leaf.

**Solitary** - alone, not in pairs or clusters.

**Spatulate** - spoon- or spatula-shaped.

**Spike** - a simple indeterminate inflorescence with sessile flowers.

**Stipular** - possessing stipules at the base of leaves.

**Stipule** - a leafy appendage usually paired at the base of a leaf stalk.

**Strobilus** - a cone.

**Terminal** - at the end.

**Tomentose** - densely hairy or woolly.

**Whorled** - a spiral arrangement of leaves on a twig or branch at the node.

# PHOTO CREDITS

All photographs were taken by South Carolina Forestry Commission personnel except for those listed below. The page number where the photographs appear is listed first under the photographer's name, followed by the tree species and type of photo.

Franklin Bonner, USFS (ret.), Bugwood.org  
9: Cabbage Palmetto - fruit; 63: Willow Oak - fruit; 75: Black Willow - fruit; 79: Eastern Cottonwood - fruit; 115: Blackjack Oak - fruit; 117: Cherrybark Oak - fruit; 137: Silver Maple - fruit; 139: Southern Red Oak - fruit; 149: Yellow-Poplar - fruit; 153: Black Walnut - fruit; 165: Pignut Hickory - fruit

Charles T. Bryson, USDA Agricultural Research Service, Bugwood.org  
25: Pondcypress - cones

Clemson University - Champion Tree  
117: Cherrybark Oak - leaf

Clemson University - USDA Cooperative Extension Slide Series, Bugwood.org  
163: Pecan - flower

Bill Cook, Michigan State University, Bugwood.org  
79: Eastern Cottonwood - flower; 91: Serviceberry - twig; 155: Boxelder - bark

Will Cook  
12-13: Carolina Hemlock - tree, leaf, cone, bark, twig; 105: Wax Myrtle - bark; 107: White Basswood - leaf (right)

Chris Evans, University of Illinois, Bugwood.org  
17: Eastern White Pine - bark; 41: Bluejack Oak - leaf, bark, flower; 51: Pawpaw - leaf; 69: American Holly - flower; 71: American Hornbeam - fruit, flower; 77: Carolina Laurelcherry - flower; 78: Eastern Cottonwood - tree; 97: Sugarberry - bark; 99: Swamp Chestnut Oak - twig; 103: Water Tupelo - bark; 109: Winged Elm - flower;

113: Black Oak - leaf, twig; 118: Chestnut Oak - tree; 125: Northern Red Oak - bark; 133: Sassafras - bark, flower, fruit; 134: Scarlet Oak - tree; 139: Southern Red Oak - twig; 143: Turkey Oak - bark, flower, twig; 145: Water Oak - tree, flower; 151: Black Locust - twig; 159: Honeylocust - fruit; 161: Mockernut Hickory - flower; 165: Pignut Hickory - flower, twig

Wendy VanDyk Evans, Bugwood.org  
93: Sourwood - flower; 119: Chestnut Oak - leaf

Jim Ford, Grower Jim's Plants and Produce, LLC  
9: Cabbage Palmetto - flowers

Keith Kanoti, Maine Forest Service, Bugwood.org  
17: Eastern White Pine - cone; 113: Black Oak - bark; 171: White Ash - bark, fruit

Steven Katovich, USDA Forest Service, Bugwood.org  
66: American Elm - tree; 74: Black Willow - tree; 112: Black Oak - tree; 136: Silver Maple - tree

Joseph LaForest, University of Georgia, Bugwood.org  
50: Pawpaw - tree

Nancy Loewenstein, Auburn University, Bugwood.org  
119: Chestnut Oak - bark; 167: Red Buckeye - leaf, twig

Becca MacDonald, Sault College, Bugwood.org  
17: Eastern White Pine - needles (top)

Robert H. Mohlenbrock, hosted by the USDA-NRCS PLANTS Database / USDA NRCS. 1995. Northeast wetland flora: Field office guide to plant species. Northeast National Technical Center, Chester.  
101: Swamp Cottonwood - bark



Ohio Department of Natural Resources  
119: Chestnut Oak - twig

Jerry A. Payne, USDA Agricultural  
Research Service, Bugwood.org  
163: Pecan - fruit

Luke Porter  
107: White Basswood - leaf (left)

Karan A. Rawlins, University of Georgia,  
Bugwood.org  
89: River Birch - flower (middle right top);  
120: Chinkapin Oak - tree

Rob Routledge, Sault College, Bugwood.  
org  
81: Eastern Hophornbeam - bark, twig;  
125: Northern Red Oak - flower; 137:  
Silver Maple - twig; 147: White Oak - twig;  
153: Black Walnut - twig; 155: Boxelder -  
twig

John Ruter, University of Georgia,  
Bugwood.org  
34: Atlantic White Cedar - tree; 58:  
Swamp Tupelo - tree; 80: Eastern  
Hophornbeam - tree; 90: Serviceberry -  
tree; 95: Southern Crabapple - tree; 105:  
Wax Myrtle - flower; 161: Mockernut  
Hickory - fruit; 166-167: Red Buckeye -  
tree, flower; 170-171: White Ash - tree,  
leaf

Jan Samanek, Phytosanitary  
Administration, Bugwood.org  
150-151: Black Locust - tree, flower; 155:  
Boxelder - flower

Kristina Simms, Bugwood.org  
95: Southern Crabapple - flower

David Stephens, Bugwood.org  
91: Serviceberry - flower; 119: Chestnut  
Oak - fruit; 124: Northern Red Oak - tree;  
135: Scarlet Oak - fruit

Dr. Jeremy P. Stovall, Stephen F. Austin  
State University  
106: White Basswood - tree; 167: Red  
Buckeye - fruit

T. Davis Sydnor, The Ohio State  
University, Bugwood.org  
61: Sweetbay - fruit; 89: River Birch -  
flower (middle right bottom), twig; 121:  
Chinkapin Oak - bark; 167: Red Buckeye  
- bark; 171: White Ash - flower

Robert Vidéki, Doronicum Kft., Bugwood.  
org  
159: Honeylocust - flower

Rebekah D. Wallace, University of  
Georgia, Bugwood.org  
53: Persimmon - flower; 55: Redbay -  
flower; 57: Southern Magnolia - flower;  
61: Sweetbay - flower; 87: Red Mulberry  
- flower

Vern Wilkins, Indiana University,  
Bugwood.org  
65: American Beech - flower; 100-101:  
Swamp Cottonwood - tree, leaf; 113: Black  
Oak - fruit; 135: Scarlet Oak - bark; 137:  
Silver Maple - Bark

Paul Wray, Iowa State University,  
Bugwood.org  
25: Pondcypress - twig; 67: American Elm  
- flower; 75: Black Willow - flower; 79:  
Eastern Cottonwood - leaf; 81: Eastern  
Hophornbeam - fruit, flower, leaf; 83:  
Hawthorn - flower; 91: Serviceberry - leaf,  
fruit; 95: Southern Crabapple - leaf, fruit;  
121: Chinkapin Oak - leaf, fruit, flower,  
twig; 125: Northern Red Oak - fruit; 129:  
Post Oak - fruit; 137: Silver Maple - leaf,  
flower; 147: White Oak - fruit; 151: Black  
Locust - leaf, bark, fruit; 153: Black Walnut  
- flower; 157: Green Ash - flower, twig;  
163: Pecan - twig; 169: Shagbark Hickory  
- fruit, flower

# INDEX

Tree	Page	Tree	Page
American Beech	64	Post Oak	128
American Elm	66	Red Buckeye	166
American Holly	68	Red Maple	130
American Hornbeam	70	Red Mulberry	86
American Sycamore	110	Redbay	54
Atlantic White Cedar	34	River Birch	88
Baldcypress	10	Sassafras	132
Black Cherry	72	Scarlet Oak	134
Black Locust	150	Serviceberry	90
Black Oak	112	Shagbark Hickory	168
Black Walnut	152	Shortleaf Pine	26
Black Willow	74	Silver Maple	136
Blackgum	38	Slash Pine	28
Blackjack Oak	114	Sourwood	92
Bluejack Oak	40	Southern Crabapple	94
Boxelder	154	Southern Magnolia	56
Cabbage Palmetto	8	Southern Red Oak	138
Carolina Hemlock	12	Spruce Pine	30
Carolina Laurelcherry	76	Sugarberry	96
Cherrybark Oak	116	Swamp Chestnut Oak	98
Chestnut Oak	118	Swamp Cottonwood	100
Chinkapin Oak	120	Swamp Tupelo	58
Eastern Cottonwood	78	Sweetbay	60
Eastern Hemlock	14	Sweetgum	140
Eastern Hophornbeam	80	Turkey Oak	142
Eastern Redbud	42	Virginia Pine	32
Eastern Redcedar	36	Water Oak	144
Eastern White Pine	16	Water Tupelo	102
Florida Maple	122	Wax Myrtle	104
Flowering Dogwood	44	White Ash	170
Green Ash	156	White Basswood	106
Hawthorn	82	White Oak	146
Honeylocust	158	Willow Oak	62
Laurel Oak	46	Winged Elm	108
Live Oak	48	Yellow-Poplar	148
Loblolly Bay	84		
Loblolly Pine	18		
Longleaf Pine	20		
Mockernut Hickory	160		
Northern Red Oak	124		
Overcup Oak	126		
Pawpaw	50		
Pecan	162		
Persimmon	52		
Pignut Hickory	164		
Pond Pine	22		
Pondcypress	24		